STRUCTURES

082-0004 - POPLAR ST. BRIDGE - ORTHOTROPIC - 5 SPAN
LIMITS - RIVER PIER #1 TO RIVER PIER #6

082-0005 - 82-3 VB - 6 SPAN CONTINUOUS, MULTI BEAM, PLATE GIRDER
LIMITS - RIVER PIER #6 TO PIERS A1, BC1, AND D1

Start 2-GIRDER "POPLAR STREET COMPLEX"

082-0141 - RDWY "A" 45 SPAN 13TH ST. NORTH TO (C.D. WB)
LIMITS - PIER A-1 ----- ABUT. A-46

082-0252 - RDWY "B" 28 SPAN MAINLINE WEST BOUND
LIMITS - PIER B-1 ----- ABUT. B-29

082-0251 - RDWY "C" 28 SPAN MAINLINE EAST BOUND
LIMITS - PIER C-1 ----- ABUT. C-29

082-0144 - RDWY "D" 45 SPAN ST. LOUIS TO 13TH ST. (C.D. EB)
LIMITS - PIER D-1 ----- ABUT. D-46

082-0205 - RDWY "E" 10 SPAN TO ILL.-3 SB
LIMITS - PIER O-17. O-18. E-1 ----- ABUT. E-9

082-0204 - RDWY "F" 12 SPAN FROM ILL.-3 NB TO RAMP "P" EAST
LIMITS ABUT. F-1 ----- F-12 TO PIER P-1

082-0254 - RDWY "G" 13 SPAN (C.D. WB)
LIMITS - ABUT. G-14 ----- PIER G-1

082-0256 - RDWY "H" 4 SPAN (C.D. EB)
LIMITS - PIER H-1 ----- ABUT. H-5

082-0145 - RAMP "M" 15 SPAN ILL.-3 TO W.B. CD
LIMITS - PIER P-1 TO ABUT. M-1 ----- PIER M-14 TO A-5

082-0202 - RAMP "N" 8 SPAN EB CD TO ILL-3 SOUTH
LIMITS - PIER D-11 TO N-1 ----- N-7 T0 0-17

082-0201 - RAMP "O1" 10 SPAN WB CD TO ILL.-3 SOUTH
LIMITS - PIER G-1 TO O-1 ----- ABUT. 0-10

082-0143 - RAMP "O2" 6 SPAN WB CD TO ILL.-3 SOUTH
LIMITS - ABUT. O-11 ----- PIER O-17

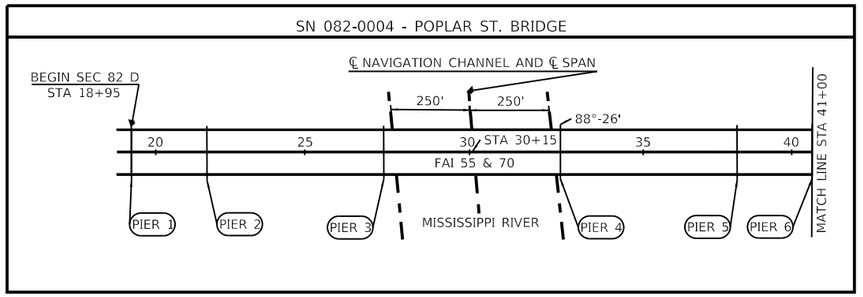
082-0203 - RAMP "P" 15 SPAN RTE. ILL.-3 TO EB CD
LIMITS - PIER P-1 ----- P-15 TO H-1

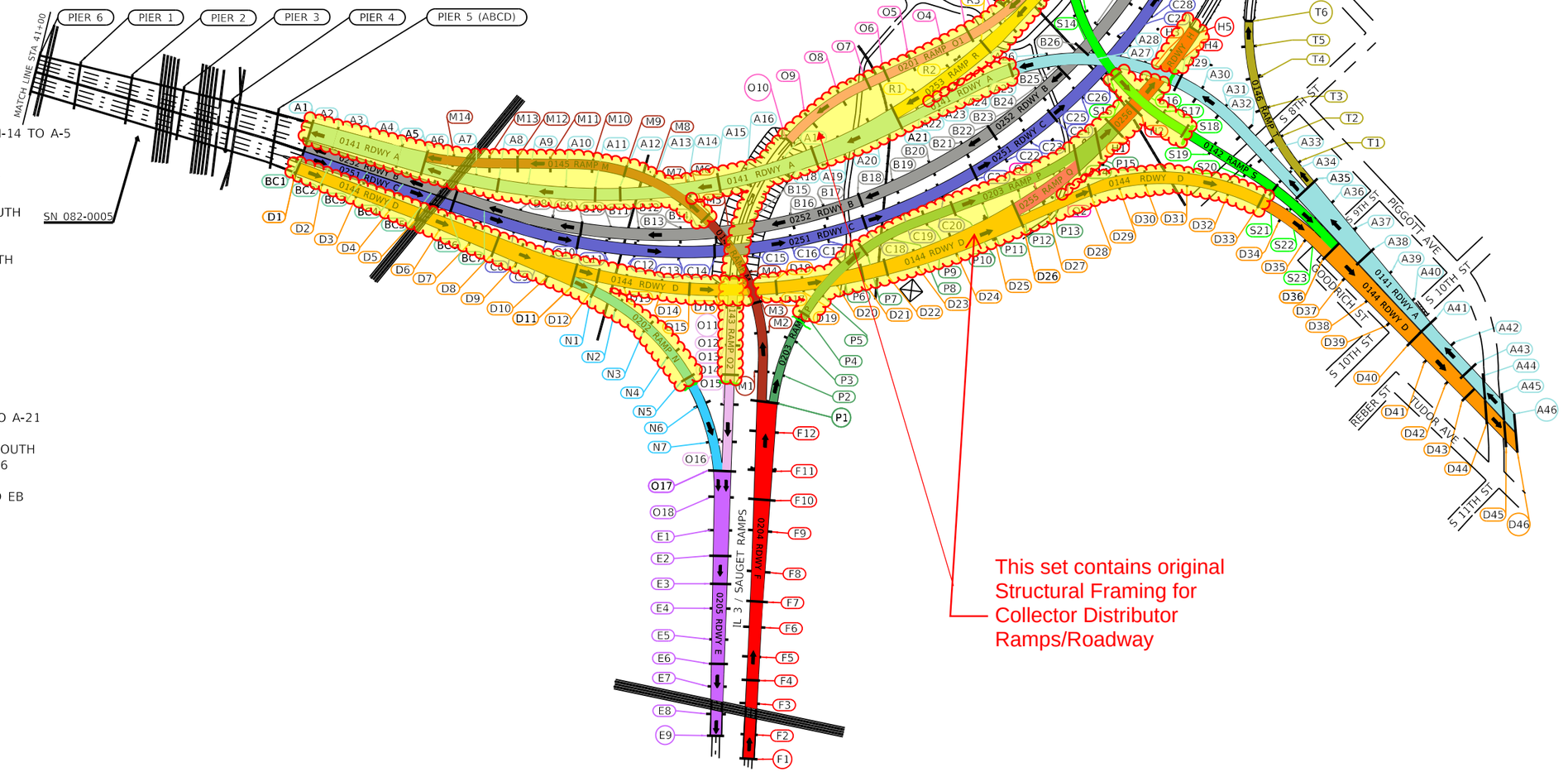
082-0255 - RAMP "Q" 3 SPAN EB CD
LIMITS - PIER D-26 TO Q-1 TO Q-2 TO P-14

082-0253 - RAMP "R" 6 SPAN WB CD
Limits - PIER G-1 TO O-1 TO R-4 ----- R-1 TO A-21

082-0142 - RAMP "S" 24 SPAN WB CD TO 13TH ST. SOUTH
LIMITS - PIER G-12 TO S-1 ----- S-23 TO D-36

082-0146 - RAMP "T" 6 SPAN 13TH ST. NORTH TO CD EB
LIMITS - PIER A-35 TO T-1 ----- ABUT. T-6




PIER 6
PIER 1
PIER 2
PIER 3
PIER 4
PIER 5 (ABCD)
MATCH LINE STA 41+00
SN 082-0005
SN 082-0006
SN 082-0007
SN 082-0140
BRENNTAG
TRENDLEY AVE
0141 RDWY A
0251 RDWY C
0144 RDWY D
0145 RAMP M
0252 RDWY B
0254 RDWY G
0147 RAMP S
0201 RAMP O1
0253 RAMP R
0253 RDWY A
0256 RDWY H
0146 RAMP T
0202 RAMP N
0203 RAMP P
0255 RAMP Q
0205 RAMP E
0143 RAMP O2
0204 RDWY F
0142 RAMP S
0255 RAMP Q
0252 RDWY B
0251 RDWY C
0144 RDWY D
0205 RAMP E
0202 RAMP N
0203 RAMP P
0145 RAMP M
0141 RDWY A
0144 RDWY D
0202 RAMP N
0143 RAMP O2
0204 RDWY F
0205 RAMP E
0202 RAMP N
0203 RAMP P
0255 RAMP Q
0252 RDWY B
0251 RDWY C
0144 RDWY D

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.–70	82-3HVF&E-1	ST. CLAIR	247	1
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT I-IG-70-1(781)0		

P–98–087–00

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.I. ROUTE 70 SECTION 82-3HVF&E-1

PROJECT I-IG-70-1(81)0

POPLAR STREET BRIDGE APPROACHES

ST. CLAIR COUNTY

C–98–032–65

DESCRIPTION OF PROJECT:

SECTION 82-3HVF & E-1 INCLUDES THE FURNISHING, FABRICATING AND ERECTING OF THE STRUCTURAL STEEL FOR THE FOLLOWING

ROADWAY A	TWO 4-SPAN CONTINUOUS UNITS SPANS: 1 EACH @ 83-5 5/8, 106'-106'-83; 87'-110'-110'-87'
	FIVE 3-SPAN CONTINUOUS UNITS SPANS: 2 @ 97'-124'-97' 1 EACH @ 75'-96'-75' 95'-122'-95' 89'-114'-89'
	ONE SIMPLE SPAN - 80'
ROADWAY D	TWO 4-SPAN CONTINUOUS UNIT SPANS: 1 @ 90'-7 9/16, 115'-115'-90' 1 @ 100'-128'-128'-100'
	ONE 3-SPAN CONTINUOUS UNIT SPANS: 107'-137'-137'-107'
	FIVE 3-SPAN CONTINUOUS UNITS SPANS: 2 @ 85'-108'-85' 2 @ 61'-105'-81' 1 @ 90'-115'-90'
	ONE 2-SPAN CONTINUOUS UNIT SPANS: 89'-6, 89'-6
	TWO SIMPLE SPANS SPANS 1 @ 74' 1 @ 78'
ROADWAY G	TWO 4-SPAN CONTINUOUS UNITS SPANS: 1 @ 88'-113'-113'-88' 1 @ 87'-110'-110'-87'
	ONE 3-SPAN CONTINUOUS UNIT SPANS: 90'-116'-90'
	ONE 2-SPAN CONTINUOUS UNIT SPANS: 76'-76'
ROADWAY H	ONE 3-SPAN CONTINUOUS UNIT SPAN: 97'-124'-97'
	ONE SIMPLE SPAN - 88'
RAMP M	THREE 3-SPAN CONTINUOUS UNITS SPANS: 1 @ 90'-115'-90' 1 @ 105'-134'-105' 1 @ 90'-115'-85-10 11/16
RAMP N	ONE 4-SPAN CONTINUOUS UNIT SPANS: 90'-115'-115'-90'
	ONE SIMPLE SPAN - 73-1 5/16
RAMP O	FOUR 3-SPAN CONTINUOUS UNIT SPANS: 1 @ 97-5 3/4, 130'-101' 1 @ 90'-115'-90' 1 @ 95'-121'-95' 1 @ 94'-120'-94'
	ONE SIMPLE SPAN - 65'
RAMP P	ONE 4-SPAN CONTINUOUS UNIT SPANS: 94'-121'-121'-94'
	TWO 3-SPAN CONTINUOUS UNIT SPANS: 1 @ 81'-115'-81' 1 @ 96'-122'-96'
	TWO SIMPLE SPANS 1 @ 88' 1 @ 69'

RAMP Q	ONE 3-SPAN CONTINUOUS UNIT SPANS: 75-2 7/8, 98'-76'
RAMP R	TWO 3-SPAN CONTINUOUS UNITS SPANS 1 @ 104-4 5/16, 134'-106 1 @ 101'-130'-101'
RAMP S	ONE 4-SPAN CONTINUOUS UNIT SPANS: 85'-108'-108'-85'
	THREE 3-SPAN CONTINUOUS UNIT SPANS: 1 @ 71-2 7/8, 95'-74' 1 @ 69'-97'-69' 1 @ 88'-113'-88'





THE POPLAR STREET BRIDGE APPROACHES FOR THIS SECTION CARRY THE FOLLOWING:

ROADWAY A OVER THE TRACKS OF THE TERMINAL R.R. ASSOCIATION, GULF, MOBILE AND OHIO, AND ILLINOIS CENTRAL RAILROADS AND RAMP O;
ROADWAY D OVER THE TRACKS OF THE TERMINAL R.R. ASSOCIATION, GULF, MOBILE AND OHIO, ILLINOIS CENTRAL AND SOUTHERN RAILROADS, RAMP O AND ILLINOIS ROUTE 3;
ROADWAY G OVER TRENDLEY AND PIGGOTT AVENUES;
ROADWAY H OVER THE ILLINOIS CENTRAL RAILROAD;
RAMP M OVER ROADWAY A AND THE TRACKS OF THE TERMINAL R.R. ASSOCIATION AND THE GULF, MOBILE AND OHIO RAILROADS;
RAMP N OVER THE TRACKS OF THE TERMINAL R.R. ASSOCIATION AND GULF, MOBILE AND OHIO RAILROAD;
RAMP O OVER THE ILLINOIS CENTRAL RAILROAD;
RAMP P OVER ROADWAY D, FUTURE ACCESS ROADS AND THE ILLINOIS CENTRAL RAILROAD;
RAMP Q OVER THE ILLINOIS CENTRAL RAILROAD;
RAMP R OVER THE ILLINOIS CENTRAL RAILROAD AND A FUTURE ACCESS ROAD;
RAMP S OVER TRENDLEY AVENUE AND ROADWAY H.

THE SPANS DESCRIBED ABOVE INCLUDE THIRTY-NINE (39) CONTINUOUS UNITS AND EIGHT (8) SIMPLE SPANS. THE CONTINUOUS UNITS INCLUDE THIRTY-SIX (36) FULLY OR PARTIALLY CURVED AND THREE NON-CURVED WELDED PLATE GIRDERS WITH ROLLED AND WELDED PLATE FLOORBEAMS AND ROLLED STRINGERS. THE SIMPLE SPANS ARE ALL COMPOSITE WF.

NOTE:
FOR INDEX OF SHEETS AND SUMMARY OF QUANTITIES SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED 11-30 1965 Robert B. Arnold
EXAMINED 12-20 1965 W. Ray Quarles
PASSED 12-20 1965 M.E. Bateman
APPROVED 12-20 1965
APPROVED 12-20 1965 Francis S. Greenlee

LENGTH OF PROJECT
4261.16 FT. = .807 MILES

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

2259
Aug 27 1965

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER DATE

Contract No. 24962

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVFBE-1	ST. CLAIR	247	1
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT I-IG-70-1(781)0		

P-98-087-00

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A.I. ROUTE 70 SECTION 82-3HVF&E-1

PROJECT I-IG-70-1(81)0

POPLAR STREET BRIDGE APPROACHES

ST. CLAIR COUNTY

C-98-032-65

DESCRIPTION OF PROJECT:

SECTION 82-3HVF & E-1 INCLUDES THE FURNISHING, FABRICATING AND ERECTING OF THE STRUCTURAL STEEL FOR THE FOLLOWING:

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RAMP S	ONE 4-SPAN CONTINUOUS UNIT SPANS: 85'-108'-108'-85' THREE 3-SPAN CONTINUOUS UNIT SPANS: 1 @ 73-2 7/8, 95'-74' 1 @ 69'-97'-69' 1 @ 88'-113'-88'

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ROADWAY A OVER THE TRACKS OF THE TERMINAL R.R. ASSOCIATION, GULF, MOBILE AND OHIO, AND ILLINOIS CENTRAL RAILROADS AND RAMP O;
ROADWAY D OVER THE TRACKS OF THE TERMINAL R.R. ASSOCIATION, GULF, MOBILE AND OHIO, ILLINOIS CENTRAL AND SOUTHERN RAILROADS, RAMP O AND ILLINOIS ROUTE 3;
ROADWAY G OVER TRENDLEY AND PIGGOTT AVENUES;
ROADWAY H OVER THE ILLINOIS CENTRAL RAILROAD;
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RAMP R OVER THE ILLINOIS CENTRAL RAILROAD AND A FUTURE ACCESS ROAD;
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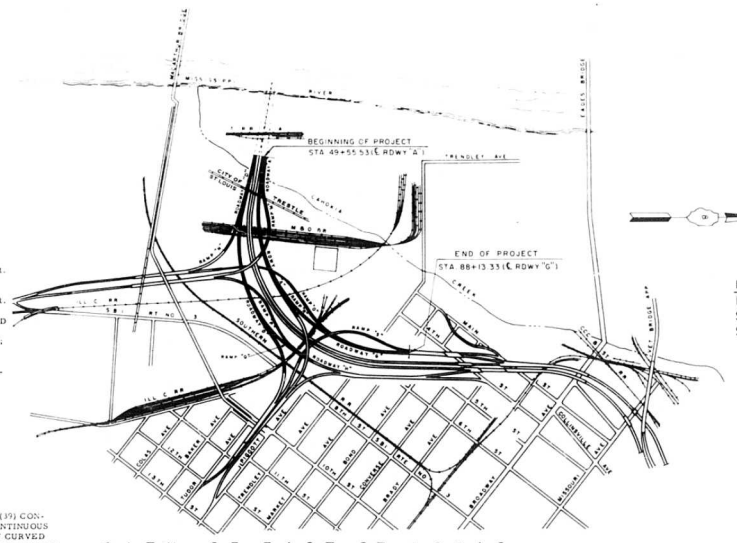


LOCATION PLAN



LOCATION OF SECTION INDICATED THUS: ■

NOTE:
FOR INDEX OF SHEETS AND SUMMARY OF QUANTITIES SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED 11-30 19 65
Robert D. Kraft
ESTIMATED 12-20 19 65
A. Van Cleveland
PASSED 12-20 19 65
M.E. Bauman
APPROVED 12-20 19 65
APPROVED 12-20 19 65
Francis J. Gray

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER DATE

LENGTH OF PROJECT
4261.16 FT. = .807 MILES

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

2257
Aug 27 1965

Contract No. 24962

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	2
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

INDEX OF SHEETS
SECTION 82-3 HVF & E-1

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS, SUMMARY OF QUANTITIES, GENERAL NOTES
3 AND 4	PLAN OF EXISTING CONDITIONS AND UTILITIES
5 THRU 9	RIGHT OF WAY PLANS (FOR INFORMATION ONLY)
10	LIST OF BENCH MARKS, TIES TO TRAVERSE LINE AND GENERAL PLAN OF TRAVERSE LINE
11 THRU 15	ALIGNMENT PLANS
16 THRU 18	LIST OF COORDINATE POINTS AND DESCRIPTIONS
19	KEY PLAN, GENERAL NOTES AND BILL OF MATERIAL
20 THRU 24	GENERAL PLANS
25 THRU 43	PLAN AND ELEVATION
44 THRU 52	GEOMETRIC LAYOUTS
53 THRU 234	FRAMING PLANS AND STEEL DETAILS
235 THRU 245	STRESS TABLES
246	BEARING ELEVATIONS
247	STANDARDS 1686-3 AND 2176-7
	STANDARD 2114

SUMMARY OF QUANTITIES
SECTION 82-3HVF & E-1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
Z0/398	ENGINEER'S FIELD OFFICE TYPE "A"	EACH	1
Z0/065	RAILROAD PROTECTIVE SERVICES	L SUM	1
034001	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	17,674,325
Z0/023	BRIDGE SEAT SEALANT	L SUM	1

GENERAL NOTES

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 2, 1959, THE SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAY CONING EFFECTIVE MARCH 1, 1963 AND THE SUPPLEMENTAL SPECIFICATIONS EFFECTIVE JANUARY 3, 1966.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

THE PROFILE GRADE LINE REFERS TO THE GRADE ELEVATION AT THE POINT SHOWN ON THE TYPICAL SECTIONS AND PLANS.

POSITIVE PROFILE GRADES ARE IN THE DIRECTION OF TRAFFIC AND HIGHER ELEVATIONS.

NEGATIVE PROFILE GRADES ARE IN THE DIRECTION OF TRAFFIC AND LOWER ELEVATIONS.

THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES WITHIN THE LIMITS OF CONSTRUCTION WHICH MAY REQUIRE ADJUSTMENTS:

EAST ST. LOUIS AND INTERURBAN WATER COMPANY
ILLINOIS POWER COMPANY
SOUTHWESTERN BELL TELEPHONE COMPANY
UNION ELECTRIC COMPANY
WESTERN UNION TELEGRAPH COMPANY

Weight of flange shear connectors is not included in quantity of structural steel
Cost of furnishing and placing flange shear connectors is included in section 82-3HVF-1

IG PORTION = 12.1%
I PORTION = 87.9%

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

INDEX OF SHEETS
SUMMARY OF QUANTITIES
GENERAL NOTES

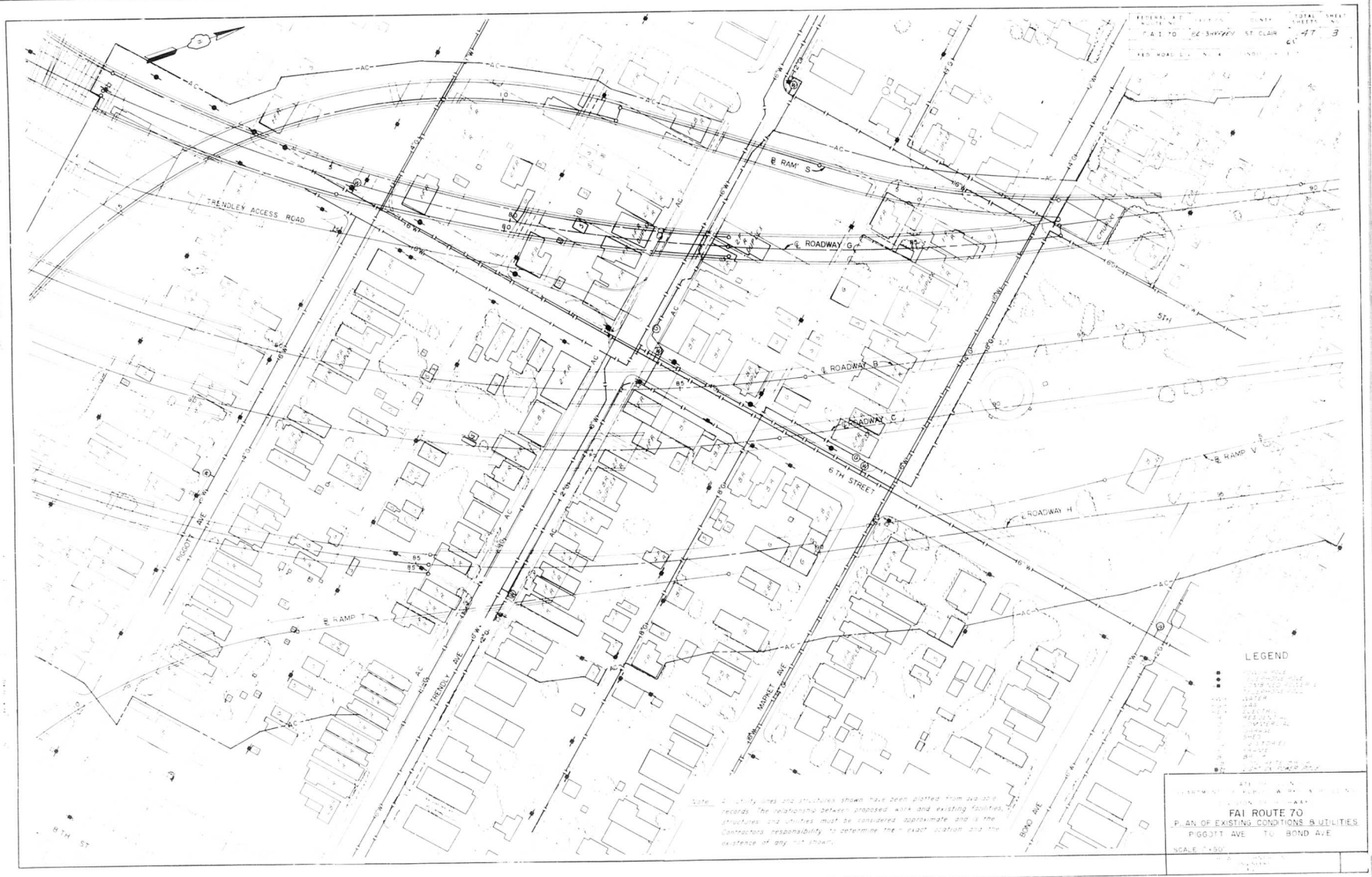
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

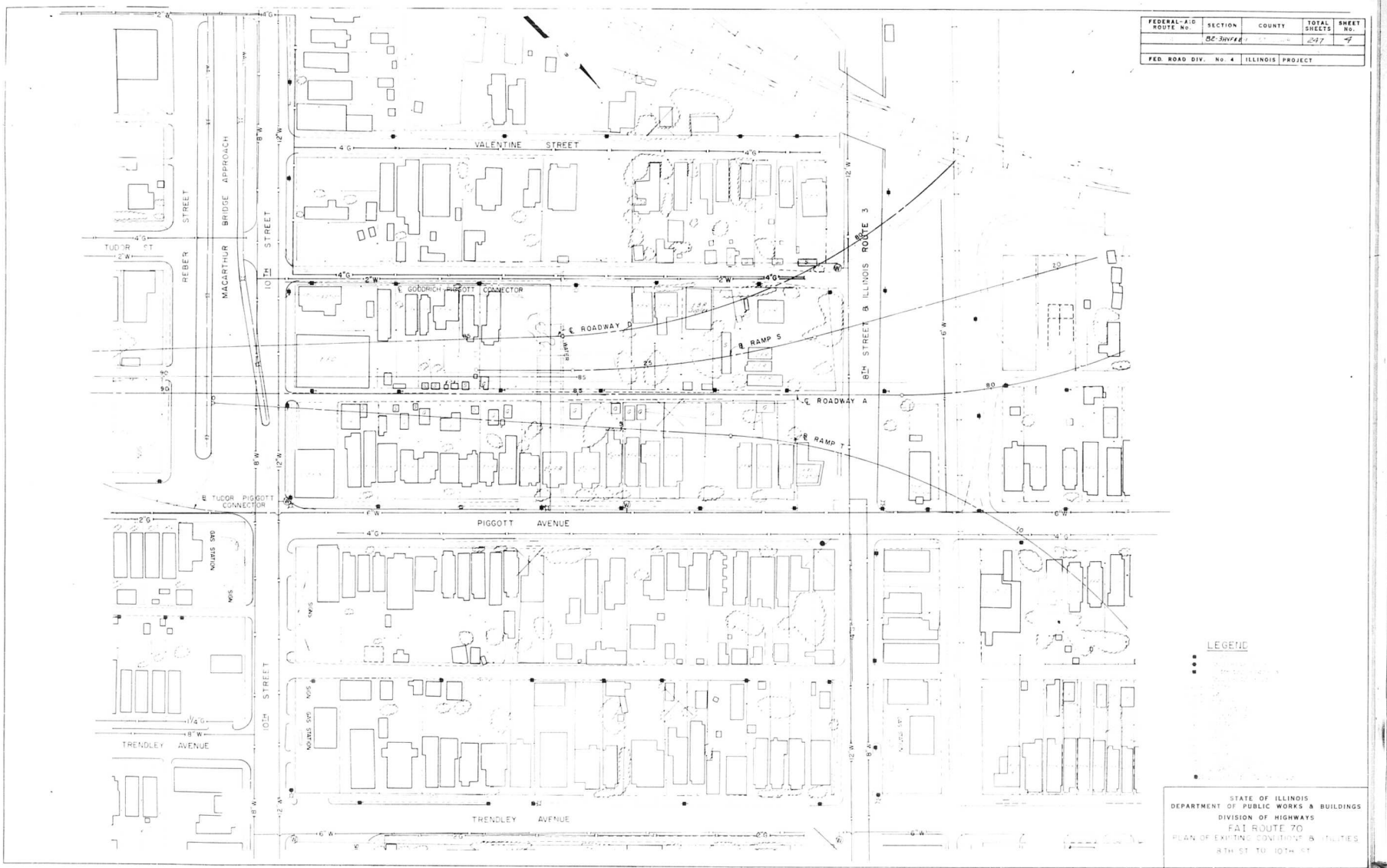
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET OF

Rev. Total Quant Str. Steel from 17,640,150# to 17,674,325# 6-3-66 N.R.F.




TRENDLEY ACCESS ROAD
℄ RAMP S
℄ ROADWAY G
℄ ROADWAY B
℄ ROADWAY C
℄ RAMP V
℄ ROADWAY H
℄ RAMP T
6TH STREET
PIGGOTT AVE
TRENDLY AVE
MARKET AVE
BOND AVE
8TH ST
51st
LEGEND
FAI ROUTE 70
PLAN OF EXISTING CONDITIONS & UTILITIES
PIGGOTT AVE TO BOND AVE
SCALE 1"=50'



FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
	82-3H,FAI		247	4
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		

LEGEND

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
FAI ROUTE 70
PLAN OF EXISTING CONDITIONS & UTILITIES
8TH ST. TO 10TH ST.

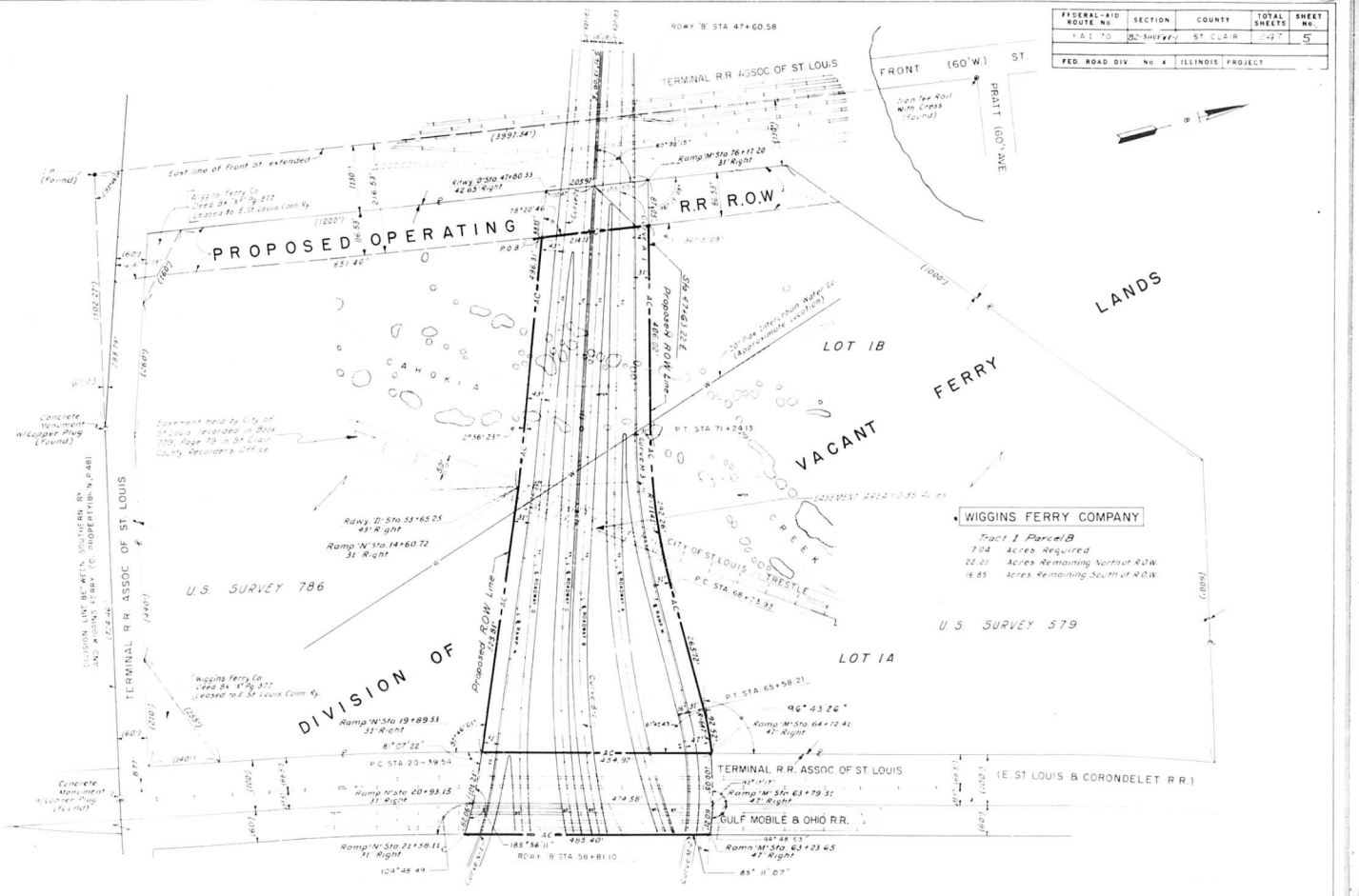
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. 70	82-3HVF-1	ST. CLAIR	247	5
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		

CURVE A-1	CURVE B-1	CURVE D-1
P.I. = 44+49.79	P.I. = 76+37.10	P.I. = 44+99.74
Δ = 1°57'51"	Δ = 97°39'16"	Δ = 2°17'29"
D = 0°16'51"	D = 3°09'24"	D = 0°17'12"
R = 20,405.00'	R = 1815.00'	R = 19,988.00'
L = 699.51'	L = 3093.47'	L = 799.37'
T = 349.79'	T = 2075.25'	T = 399.74'
E = 3.00'	E = 941.97'	E = 4.00'

CURVE M-2	CURVE M-3	CURVE N-1
P.I. = 62+15.89	P.I. = 69+74.86	P.I. = 25+09.37
Δ = 91°18'24"	Δ = 14°40'34"	Δ = 67°44'14"
D = 9°32'57"	D = 4°53'19"	D = 8°11'06"
R = 600'	R = 1172'	R = 700'
L = 956.16'	L = 300.20'	L = 827.57'
T = 613.84'	T = 150.93'	T = 469.82'
E = 258.37'	E = 9.68'	E = 143.05'



WIGGINS FERRY COMPANY

Tract 1 Parcel B

7.04	Acres Required
22.25	Acres Remaining North of R.O.W.
16.85	Acres Remaining South of R.O.W.

LEGEND

- Access Control and Right of Way line
- Property line
- (100') Recorded dimension
- 100' Measured dimension
- Right of Way line

FOR INFORMATION ONLY

I hereby certify that this is a correct Plat showing the Right of Way required for a Highway known as Federal Aid Interstate Route 70, located in the City of St. Louis, St. Clair County, Illinois, as now surveyed and staked out by H.W. Lochner, Inc., for the department of Public Works and Buildings of the State of Illinois

By _____ Illinois Land Surveyor #885 _____ Date

Approved _____ District Engineer _____ Date

Completed 5-28-64

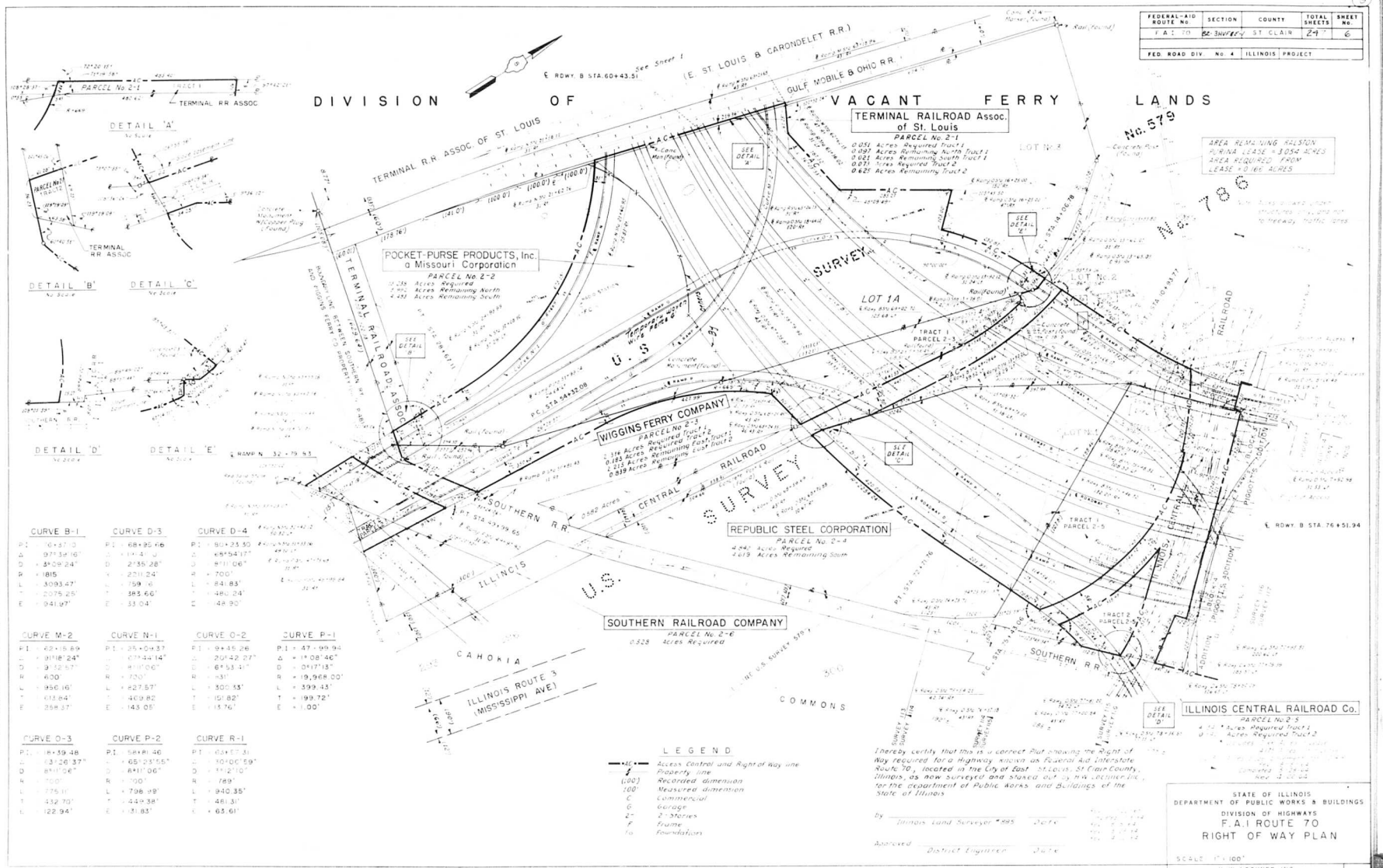
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

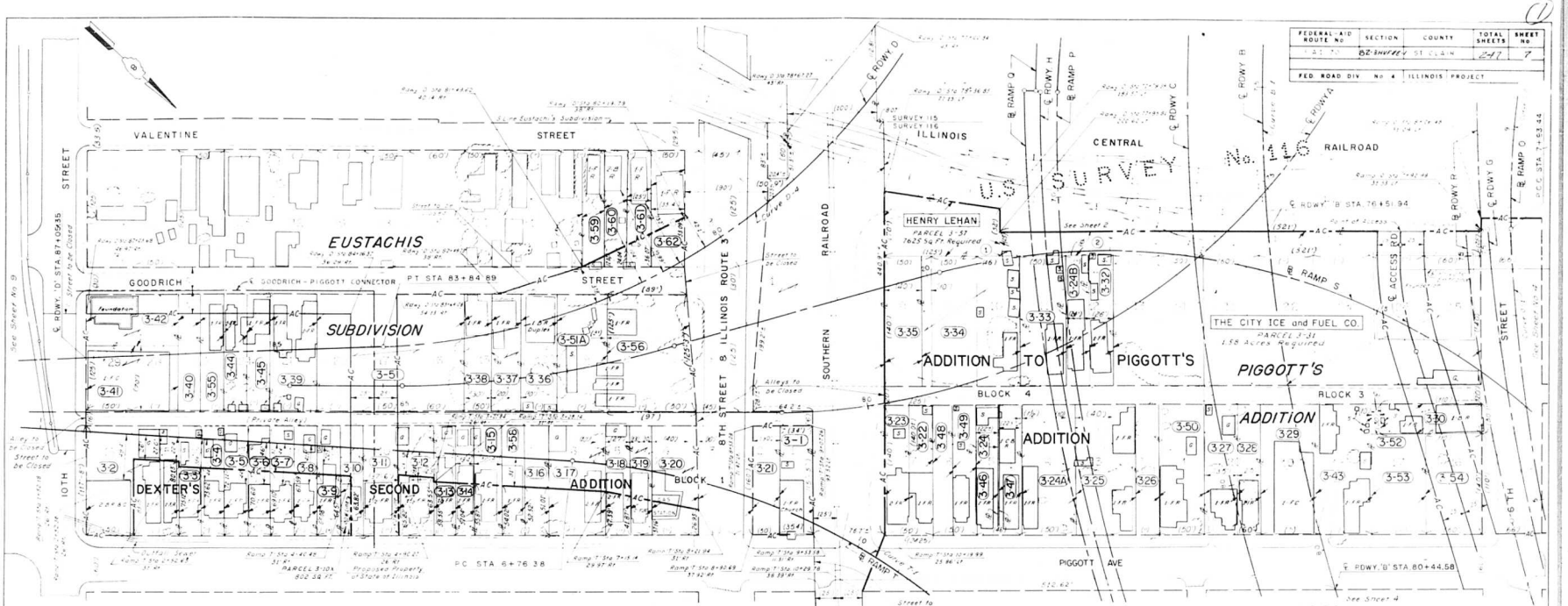
F.A.I. ROUTE 70
RIGHT OF WAY PLAN
STA. 47+60.58 TO STA. 58+81.10

SCALE 1" = 100'

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

FOR INFORMATION ONLY


DIVISION OF VACANT FERRY LANDS
TERMINAL RAILROAD Assoc. of St. Louis
PARCEL No. 2-1
0.051 Acres Required Tract 1
0.097 Acres Remaining North Tract 1
0.021 Acres Remaining South Tract 1
0.071 Acres Required Tract 2
0.625 Acres Remaining Tract 2
POCKET-PURSE PRODUCTS, Inc. a Missouri Corporation
PARCEL No. 2-2
0.358 Acres Required
0.990 Acres Remaining North
2.493 Acres Remaining South
WIGGINS FERRY COMPANY
PARCEL No. 2-3
0.116 Acres Required Tract 1
0.183 Acres Remaining Tract 1
0.223 Acres Required East Tract 2
0.839 Acres Remaining East Tract 2
REPUBLIC STEEL CORPORATION
PARCEL No. 2-4
4.845 Acres Required
4.619 Acres Remaining South
SOUTHERN RAILROAD COMPANY
PARCEL No. 2-6
0.528 Acres Required
ILLINOIS CENTRAL RAILROAD Co.
PARCEL No. 2-5
4.254 Acres Required Tract 1
0.151 Acres Required Tract 2
AREA REMAINING HALSTON ALKINA LEASE = 3.0542 ACRES
AREA REQUIRED FROM LEASE = 0.1166 ACRES
TERMINAL R.R. ASSOC. OF ST. LOUIS
GULF, MOBILE & OHIO R.R.
(E. ST. LOUIS & CARONDELET R.R.)
TERMINAL RAILROAD ASSOC.
SOUTHERN R.R.
CENTRAL R.R.
ILLINOIS
U.S. 50
U.S. 66
U.S. 67
U.S. 460
SURVEY
LOT 1A
LOT No. 2
LOT No. 3
TRACT 1 PARCEL 2-3
TRACT 1 PARCEL 2-5
TRACT 2 PARCEL 2-5
RAILROAD
CAHOKIA
ILLINOIS ROUTE 3 (MISSISSIPPI AVE)
COMMONS
DETAIL 'A'
DETAIL 'B'
DETAIL 'C'
DETAIL 'D'
DETAIL 'E'
SEE DETAIL 'A'
SEE DETAIL 'B'
SEE DETAIL 'C'
SEE DETAIL 'D'
SEE DETAIL 'E'
℄ RDWY. B STA. 60+43.51
℄ RDWY. B STA. 76+51.94
See Sheet 1
PARCEL No. 2-1
TRACT 1
TRACT 2
PARCEL No. 2-2
PARCEL No. 2-3
PARCEL No. 2-4
PARCEL No. 2-5
PARCEL No. 2-6
TEMPORARY WORK PLATFORM
RAILROAD CROSSING SIGNALS
Concrete Monument (Found)
Rail (Found)
Iron Pipe (Found)
Iron Rod (Found)
Concrete Right of Way Marker (Found)
Concrete Monument (Found)
Concrete Right of Way Marker (Found)
Concrete Monument (Found)
Concrete Right of Way Marker (Found)
Concrete Monument



FEDERAL-AID ROUTE No	SECTION	COUNTY	TOTAL SHEETS	SHEET No
I-A31-7(3)	82-SHIFREY	ST CLAIR	247	7
FED. ROAD DIV. No 4	ILLINOIS	PROJECT		

PIGGOTT'S ADDITION TO TOWN OF ILLINOIS (1)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ FT	REMAINDER SQ FT
3-56	pt 10	1	ALLAN S. KAPP & ZOLA L. KAPP, his wife	4,900	0
3-57	pt 10	5	GEORGE NELSON & LENA NELSON, his wife	3,500	0
3-58	19	5	MODERN ENGINEERING COMPANY, INC.	8,400	0
3-59	pt 17	5	[illegible] & NETTIE FISCHER, his wife	3,500	0
3-60	pt 17	5	EMMA L. BEALH	3,500	0
3-61	pt 17	5	HARRY ELDRIDGE & GEORGIA L. ELDRIDGE, his wife	8,400	0
3-62	pt 17	5	GRACE R. SIBLEY	6,600	0
3-63	pt 17	5	HARRY ELDRIDGE & GEORGIA L. ELDRIDGE, his wife	6,600	0

(1) BOOK OF PLATS 'F' PAGE 10

ADDITION TO PIGGOTT'S ADDITION OF THE TOWN OF ILLINOIS (2)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ FT	REMAINDER SQ FT
3-32	pt 17	1	[illegible]	5,553	0
3-33	pt 17	1	ANTONIO SULLIVAN & ANNA SULLIVAN, his wife	1,715	0
3-34	pt 17	1	[illegible]	9,100	0
3-35	pt 17	1	[illegible] KATT, widow	3,500	0
3-36	pt 17	1	[illegible] BERMAN and CATHERINE ENGERMAN, his wife	3,447	0
3-37	pt 17	1	[illegible]	3,640	0
3-38	pt 17	1	[illegible]	7,000	0
3-39	pt 17	1	[illegible]	4,241	0
3-40	pt 17	1	[illegible]	5,600	0
3-41	pt 17	1	SARAH [illegible] & [illegible]	3,080	0
3-42	pt 17	1	SIMON [illegible] & [illegible], his wife	3,360	0
3-43	pt 17	1	EUGENE [illegible] & [illegible]	3,500	0
3-44	pt 17	1	MICHAEL [illegible] & [illegible]	3,500	0
3-50	1	4	HOWARD HOOVER and TRISENE HOOVER, his wife	7,000	0

(2) BOOK OF PLATS 'F' PAGE 9

DEXTER'S SECOND ADDITION TO THE CITY OF EAST ST LOUIS (3)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ FT	REMAINDER SQ FT
3-1	1	1	KENNETH RANK & MILDRED RANK, his wife	4,008	0
3-2	pt 16	1	THEODORE N. MARVEL	7,471	4,062
3-3	pt 14	1	LEON THOMPSON & SAVANAH THOMPSON, his wife	1,675	1,559
3-4	pt 14	1	JOSEPH J. DAUGHERTY & GRACE KING, his mother	1,710	1,822
3-5	pt 15	1	CHARLES KLINE	1,147	1,764
3-6	pt 15	1	ALEXANDER J. BOGDAN & MARGARET BOGDAN his wife	1,183	1,746
3-7	pt 10	1	MISS HOWARD & SAVANAH T. HOWARD, his wife	1,218	1,709
3-8	pt 10	1	FRITZ SILBERMAN	1,284	1,671
3	pt 11	1	AMESA C. COLEMAN & MARGARET COLEMAN, his wife	1,291	1,633
3-10	pt 11	1	LOUIS STREETER & CORNELIA STREETER, his wife	2,120	0
3-11	pt 10	1	HAZEL HOLLIS	4,379	0
3-12	pt 11	1	JOHN LOUIS DOWELL & SARAH DOWELL, his wife	1,949	2,426
3-13	pt 9	1	JAMES A. TOLSON & ADA TOLSON, his wife	1,470	1,445
3-14	pt 9	1	EARNEST OUTLAW & VERTIE MAE OUTLAW, his wife	1,162	1,091
3-15	pt 9	1	ANNIE L. BALL & LEO BALL her husband	1,885	1,685
3-16	pt 7	1	PAUL MEYER	1,614	1,294
3-17	pt 6	1	BERTHA GREENBERG	4,017	2,952
3-18	pt 5	1	ELLEN V. SHELTON	1,919	1,205
3-19	pt 5	1	MARK E. GERALD	1,759	909
3-20	pt 5	1	JOSEPH A. TROY, Jr.	4,192	1,102
3-21	pt 2	1	CITY PRODUCTS CORPORATION, a CORPORATION, LENT	3,468	0
3-38	pt 7	1	ISABELLA BRIDGES and SECILLA WHITE	1,378	1,332
3-1A	pt 11	1	LOUIS STREETER & wife CORNELIA STREETER, his wife	802	0

(3) BOOK OF PLATS 'F' PAGE 1

RE-SURVEY OF EUSTACHI'S OF LOT 13 IN SURVEY NO 116 (4)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ FT	REMAINDER SQ FT
3-36	pt 12		FRANK BANKS & MABEL BANKS, his wife	3,000	0
3-37	pt 13		MAGGIE TATE	3,750	0
3-38	pt 13		ARTHUR F. MEYER & ELNORA B. MEYER, his wife	3,750	0
3-39	21		ERNEST J. HOFFINGER & RAYMOND HOFFINGER	6,250	0
3-40	pt 25		ALEX DOMIAN & SHIRLEY M. DOMIAN, his wife	3,125	0
3-41	pt 25		ROSE DOMIAN	7,000	0
3-42	pt 25		ARTHUR C. DOUGLAS & BESSIE DOUGLAS, his wife	5,500	0
3-43	pt 24		EDWARD P. HELLMAN and DOROTHY LEE HELLMAN, his wife	3,125	0
3-45	pt 24		CHARLES DOMIAN, Jr. and ALEX DOMIAN	3,125	0
3-47	pt 10		ESTATE of GEORGE SCHAUB	20,000	0
3-51A	pt 8,9		ESTATE of GEORGE SCHAUB	6,625	0
3-51	pt 5,6		JEFF SMITH and BEAU ANN SMITH, his wife	11,625	0
3-59	pt 10		KENNETH RANK and MILDRED RANK, his wife	150	2975
3-60	pt 7		LOUIS A. RANK	451	2674
3-61	pt 7		WILLIAM P.A. RANK	751	2374
3-62	pt 6		LEO L. RANK and ANTOINETTE RANK, his wife	1,578	2847
3-55	pt 23		ARNOLD COHN	3,125	0

(4) BOOK OF PLATS 'D' PAGE 137

CURVE B-1
PI = 76+37.10
Δ = 97°39'16"
D = 3°09'24"
R = 1815
L = 3093.47
T = 2075.25'
E = 941.97'

CURVE D-1
PI = 4+03.17
Δ = 25°05'03"
D = 2°54'34"
R = 1969.33'
L = 793.44'
T = 402.17'
E = 40.65'

CURVE D-2
PI = 9+45.26
Δ = 20°42'27"
D = 6°53'41"
R = 831'
L = 300.33'
T = 151.82'
E = 13.76'

CURVE D-4
PI = 80+23.30
Δ = 68°54'17"
D = 8°11'06"
R = 700'
L = 841.83'
T = 480.24'
E = 148.90'

CURVE T-1
PI = 10+04.42
Δ = 50°13'06"
D = 8°11'06"
R = 700'
L = 613.53'
T = 328.04'
E = 73.05'

LEGEND
- Access Control and Right of Way Line
- Property Line
- Same Ownership
- Existing R/W line
- Recorded dimension
- Measured dimension
- (1) Lot Number
- Res. (entry)
- Comm. (entry)
- Garage
- Shed
- Pig Pen
- Fence
- Brick
- Proposed R/W Line
- Access Control Line

Plat Original Scale 1" = 50'
Plat Reduced Scale 1" = 100'

I hereby certify that this map is a correct Plat showing the Right of Way required for a highway known as Federal Aid Interstate Route 70, located in the City of East St. Louis, St Clair County, Illinois, as now surveyed and staked out by H.W. Lochner, Inc., for the Department of Public Works and Buildings of the State of Illinois

by _____ Illinois Land Surveyor # 885 Date _____

Approved _____ District Engineer Date _____

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
F.A.I. ROUTE 70
RIGHT OF WAY PLAN
10TH STREET TO 6TH STREET
SCALE 1" = 50'

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

FOR INFORMATION ONLY

SURVEYED | DRAWN | TRACED | NOTE BOOK | AREAS CHECKED | NO.

ORIGINAL SURVEY | REVISED | TRACED | NOTE BOOK | AREAS CHECKED | NO.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HUFFS	ST. CLAIR	247	8
FED. ROAD DIV. NO. 4	ILLINOIS PROJECT			

TOWN OF ILLINOIS (1)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ. FT.	REMAINDER SQ. FT.
4-1	pt 10	4	PLEAS JONES and CLARA JONES, his wife	3,150	0
4-12	pt 10	3	JOSEPH L GEROLD and MARGARET L GEROLD, his wife	3,250	0
4-13	pt 8	4	JIMMIE WARE and LUECILLA WARE, his wife	2,800	0
4-14	pt 8	4	ETHEL STACK and CATHERINE IRENE O'LEARY	280	0
4-15	pt 8	4	REVETTER COLEMAN	5,320	0
4-16	pt 7	4	PEARL REASON MCALISTER and PETE REASON, her son	4,900	0
4-17	pt 7	4	HARRY THOMAS and MAMIE THOMAS, his wife	3,500	0
4-18	6	4	FRITZ SILBERMAN	8,400	0
4-19	pt 5	4	VOICE PREATHER and CORA ANN PREATHER, his wife	2,100	0
4-20	pt 5	4	GASTON D MON	2,100	0
4-21	pt 5	4	RICHARD PAYNE and PELOLA PAYNE, his wife	4,200	0
4-22	pt 2	4	CONSTANT [illegible] REBECCA L HILL	2,100	0
4-23	pt 2	4	DAVID CONRAD and TRESSIE LEE CONRAD, his wife	4,200	0
4-24	pt 3	4	MAURICE COPLEVITZ and ROSE COPLEVITZ, his wife	4,200	0
4-25	pt 3	4	HERBERT E. HOTTES	4,200	0
4-26	pt 4 pt 5	4	JOSEPHINE HILL and EDGAR HILL, her husband, and ROBERT H REED and DARLINE K REED his wife	4,800	0
4-27	pt 4 pt 3	4	JOHN LAMBERT	3,400	0
4-28	pt 1	3	ARNOLD COHN	2,400	0
4-29	pt 1	3	FRANK IRONS and CECILE IRONS, his wife	6,000	0
4-30	pt 2	3	FLORENCE T MEREDITH	4,200	0
4-31	pt 2 pt 3	3	ISIAH ANDERSON and LOU ANNA ANDERSON, his wife	5,040	0
4-32	pt 4	3	JOHN W. ATCHISON	4,480	0
4-33	pt 8	3	HERBERT E HOTTES	4,200	0
4-38	pt 3	3	ALBERT JONES and MATTIE JONES, his wife	3,500	0
4-39	pt 3	3	EUGENIA SICKAGE	700	0
4-40	9	4	INTERSTATE BOND Co.	8,400	0
4-41	pt 2	4	ELIZABETH CAMPBELL, et al.	2,100	0
4-42	pt 4 pt 5	4	BEN ROWRY and VERDA B ROWRY, his wife	3,600	0
4-43	pt 4 pt 5	4	SAM GELDSTEIN and MINNIE GELDSTEIN, his wife	4,800	0
4-44	pt 3	3	EDWARD PAULMAN and DOROTHY LEE PAULMAN his wife	3,360	0
4-45	pt 4	3	ROSHELLE MARIE NELSON	3,192	0
4-46	5	3	SYLVESTER COLEMAN and LILLIAN COLEMAN, his wife	3,291	5,109
4-62	pt 8	3	FRANK CASON and MARY LUE CASON, his wife	4,200	0

(1) BOOK OF PLATS "C", PAGES 3, 4 & 315

FRANK B BOWMAN SUBDIVISION OF LOTS 9 & 10 IN BLOCK 3 OF THE PLATTED TOWN OF ILLINOIS (4)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ. FT.	REMAINDER SQ. FT.
4-34	1,2	-	L. C. HALL	6,000	0
4-35	4,5	-	OLLIE WARD and ELLA WARD, his wife	7,800	0
4-45	3	-	ELLA H DEBIKE	3,000	0

(4) BOOK OF PLATS B, PAGE 104

FRANK B BOWMAN SUBDIVISION OF LOTS 6 & 7 IN BLOCK 3 OF THE PLATTED TOWN OF ILLINOIS (5)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ. FT.	REMAINDER SQ. FT.
4-62	4,5		FRANK JASON and MARY LUE CASON, his wife	1,771	6,029
4-63	3		RUBILEE WEIN	1,117	1,883
4-64	1,2		IDA MAE HIGGINS	2,959	3,041

(5) BOOK OF PLATS B, PAGE 104

CURVE B-1
P.I. = 76+37.10
Δ = 97°39'16"
D = 34°56'24"
R = 1815'
L = 3093.47'
T = 2075.25'
E = 941.97'

CURVE O-1
P.I. = 4+02.17
Δ = 23°05'03"
D = 2°54'34"
R = 1969.33'
L = 793.44'
T = 402.17'
E = 40.65'

CURVE T-1
P.I. = 10+04.42
Δ = 50°13'06"
D = 8°11'06"
R = 700'
L = 613.53'
T = 328.04'
E = 73.05'

CURVE S-3
P.I. = 15+87.49
Δ = 92°30'40"
D = 8°11'06"
R = 700
L = 1130.24'
T = 731.37'
E = 312.38'

EDGAR AME'S ADDITION TO EAST ST. LOUIS (2)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ. FT.	REMAINDER SQ. FT.
4-1	pt 13	1	LAFAYETTE WEBSTER and MARY E WEBSTER, his wife	3,500	
4-2	pt 13	1	SAM GOLDSTEIN	3,500	
4-3	pt 14	1	EDWARD KIMME and KATIE KIMME, his wife	3,500	
4-4	pt 14	1	ROBERT JONES and ANNA WEBBITT	3,500	
4-5	pt 15	1	FRITZ SILBERMAN	3,500	
4-6	pt 15	1	ROBERT HUDSON Jr and MAGGIE HUDSON, his wife	3,500	
4-7	pt 16	1	WILLI MAE BROWN	3,500	
4-8	pt 16	1	ALBERTA M ELLIOTT and QUINTON ELLIOTT, her husband	3,500	
4-9	pt 2	1	PHILIP H. COHN Jr.	3,500	
4-10	1	1	STANLEY K GREGERSON Cand JOLYNE FREGERONICE, his wife	7,000	
4-26	pt 10	1	BRUCE H LEW and LOUIS E MITAUER	5,600	0
4-27	pt 10	1	JEREMIAH LEHAN and MARY LEHAN, his wife	1,669	0
4-28	11	1	ALBERT A HEQUEMBOURG and CATHERINE R HEQUEMBOURG, his wife	1,000	0
4-29	pt 12	1	SAMUEL STEWART and MAUDE STEWART, his wife	3,500	0
4-30	pt 12	1	E.J. SIERON	3,500	0
4-31	pt 6	1	[illegible]	147	3,153
4-36	pt 5	1	[illegible] ELIZABETH PALMER	1,427	1,773
4-53	pt 5	1	EMMETT [illegible] and [illegible] his wife	1,708	1,292
4-54	pt 4	1	ROSETTA THOMAS	1,441	359
4-55	pt 4	1	WILLIAM R. REDMON	2,520	0
4-56	pt 4	1	JOSEPHINE DUPREE	2,520	0
4-57	pt 3	1	BIRL NICHOLSON and [illegible] LEE NICHOLSON his wife	2,478	0
4-58	pt 3	1	CHARLIE ANN ROGERS and ELLIE DROGERS	2,590	0
4-59	pt 2	1	HAROLD BAKER	1,000	0

(2) BOOK OF PLATS "E" PAGE 40

PIGGOTT'S ADDITION TO THE TOWN OF ILLINOIS (3)

PARCEL NO	LOT NO	BLOCK NO	OWNER	AREA REQ'D SQ. FT.	REMAINDER SQ. FT.
4-36	pt 10	2	THOMAS LEWIS and JANICE LEWIS, his wife	6,540	0
4-37	pt 10	2	GEORGE WILEY and SARAH WILEY, his wife	1,860	0
4-60	9	2	ESTATE OF P.D. PECAU	5,904	2,496
4-61	8	2	FRANK IRONS and CECILE IRONS, his wife	1,150	7,250
4-67	pt 7	2	IRENE PEEKES	231	3,769

(3) BOOK OF PLATS "I" PAGE 117

LEGEND

- AC — Access Control and Right of Way line
- Property line
- Survey Datum Ship
- Existing R.O.W. line
- Lot Number
- R Residential
- C Commercial
- G Garage
- S Shed
- 1½ - 1½ Stories
- F Frame
- B Brick
- C.B. Concrete Block
- (1) Lot Number
- AC Access Control

I hereby certify that this is a correct Plat showing the Right of Way required for a highway known as Federal Aid Interstate Route 70, across in the City of East St. Louis, St. Clair County, Illinois, as now surveyed and staked out by H.W. Lochner, Inc. for the department of Public Works and Buildings of the State of Illinois

by _____ Illinois Land Surveyor No. _____ Date _____

Approved _____ District Engineer _____ Date _____

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

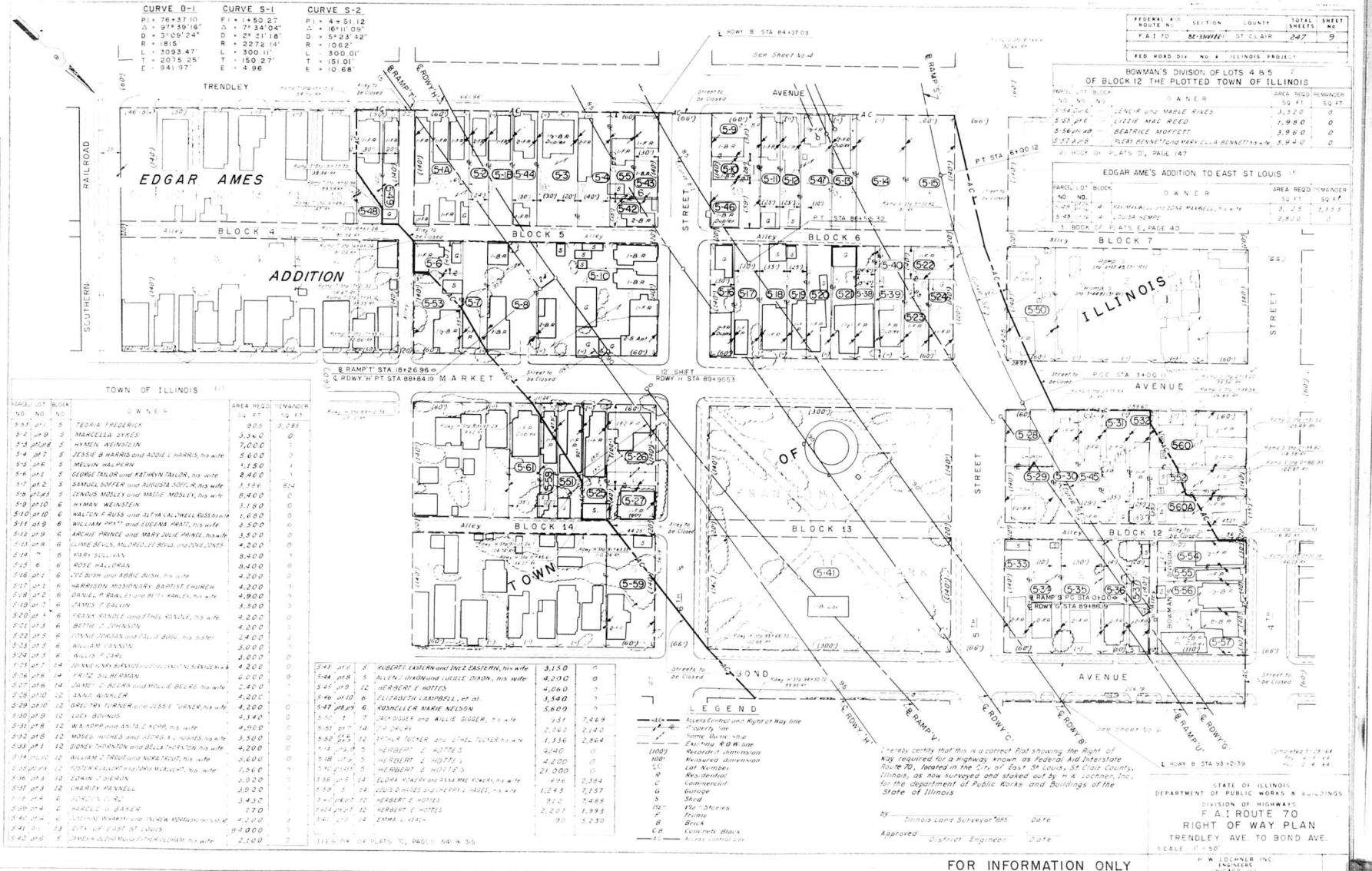
F.A.I. ROUTE 70
RIGHT OF WAY PLAN
ICRR TO TRENDLEY AVENUE

SCALE 1" = 50'

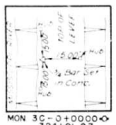
H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

Rev. 8-5-64
Rev. 8-13-64
Rev. 8-19-64
Rev. 8-26-64
Rev. 9-1-64
Rev. 9-8-64
Rev. 9-15-64
Rev. 9-22-64

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

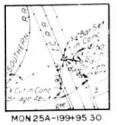

CURVE B-1
P.I. = 76+37.10
Δ = 97° 39' 16"
D = 3° 09' 24"
R = 1815'
L = 3093.47'
T = 2075.25'
E = 941.97'
CURVE S-1
P.I. = 1+50.27
Δ = 7° 34' 04"
D = 2° 31' 18"
R = 2272.14'
L = 300.11'
T = 150.27'
E = 4.96
CURVE S-2
P.I. = 4+51.12
Δ = 16° 11' 09"
D = 5° 23' 42"
R = 1062'
L = 300.01'
T = 151.01'
E = 10.68'
FEDERAL AID ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO
F.A.I. 70 | 82-3INF(E) | ST. CLAIR | 247 | 9
FED. ROAD DIV. NO. 4 | ILLINOIS | PROJECT
BOWMAN'S DIVISION OF LOTS 4 & 5 OF BLOCK 12 THE PLOTTED TOWN OF ILLINOIS
PARCEL NO. | LOT NO. | BLOCK NO. | OWNER | AREA REQD SQ. FT. | REMAINDER SQ. FT.
5-55 pt C | | | LENOIR and MARIE RIVES | 3,520 | 0
5-55 pt E | | | LIZZIE MAE REED | 1,980 | 0
5-56 pt E & W | | | BEATRICE MOFFETT | 3,960 | 0
5-57 pt W | | | PLEAS BENNETT and MARY ELLA BENNETT his wife | 5,940 | 0
2 - BOOK OF PLATS 'D', PAGE 147
EDGAR AME'S ADDITION TO EAST ST LOUIS
PARCEL NO. | LOT NO. | BLOCK NO. | OWNER | AREA REQD SQ. FT. | REMAINDER SQ. FT.
5-48 pt E | 4 | | ESTA MAXWELL and ZONA MAXWELL his wife | 3,255 | 1,555
5-49 pt W | 4 | | LOUISA HEMPE | 2,520 | 0
1 - BOOK OF PLATS 'E', PAGE 40
TOWN OF ILLINOIS (1)
PARCEL NO. | LOT NO. | BLOCK NO. | OWNER | AREA REQD SQ. FT. | REMAINDER SQ. FT.
5-53 pt W | 1 | 5 | TEORIA FREDERICK | 905 | 5,395
5-2 | pt 9 | 5 | MARCELLA DYKES | 3,360 | 0
5-3 | pt 8 & 9 | 5 | HYMEN WEINSTEIN | 7,000 | 0
5-4 | pt 7 | 5 | JESSE B HARRIS and ADDIE L HARRIS, his wife | 5,600 | 0
5-5 | pt 6 | 5 | MELVIN HALPERN | 4,150 | 0
5-6 | pt 1 | 5 | GEORGE TAYLOR and KATHRYN TAYLOR, his wife | 2,460 | 0
5-7 | pt 2 | 5 | SAMUEL SOFFER and AUGUSTA SOFFER, his wife | 1,186 | 814
5-8 | pt 2 & 3 | 5 | ZENOUS MOSLEY and MATTIE MOSLEY, his wife | 8,400 | 0
5-9 | pt 10 | 6 | HYMAN WEINSTEIN | 3,180 | 0
5-10 | pt 10 | 6 | WALTON F RUSS and ALTHA CALDWELL RUSS his wife | 1,680 | 0
5-11 | pt 9 | 6 | WILLIAM PRATT and EUGENA PRATT, his wife | 3,500 | 0
5-12 | pt 9 | 6 | ARCHIE PRINCE and MARY JULIE PRINCE, his wife | 3,500 | 0
5-13 | pt 8 | 6 | CLIME BEVIS, MILDRED LEE BEVIS, and JOVE JONES | 4,200 | 0
5-14 | " | 6 | MARY SULLIVAN | 8,400 | 0
5-15 | 6 | 6 | ROSE HALLORAN | 8,400 | 0
5-16 | pt 1 | 6 | JOE BUSH and ABBIE BUSH, his wife | 4,200 | 0
5-17 | pt 1 | 6 | HARRISON MISSIONARY BAPTIST CHURCH | 4,200 | 0
5-18 | pt 2 | 6 | DANIEL P. RAILEY and BETTY RAILEY, his wife | 4,900 | 0
5-19 | pt 3 | 6 | JAMES F. EALVIN | 3,500 | 0
5-20 | pt 4 | 6 | FRANK RANDLE and ETHEL RANDLE, his wife | 4,200 | 0
5-21 | pt 5 | 6 | BETTIE F. JOHNSON | 4,200 | 0
5-22 | pt 5 | 6 | CONNIE JORDAN and ELLIE BUGG, his sister | 2,400 | 0
5-23 | pt 5 | 6 | WILLIAM CANNON | 3,000 | 0
5-24 | pt 5 | 6 | WILLIS F. CARL | 3,000 | 0
5-25 | pt 7 | 14 | JOHNNIE MAE BRANDEE (ILLEGIBLE) SR. his wife | 4,200 | 0
5-26 | pt 6 | 14 | FRITZ SILBERMAN | 6,000 | 0
5-27 | pt 6 | 14 | JAMES C. BEERS and MOLLIE BEERS, his wife | 2,400 | 0
5-28 | pt 10 | 12 | ANNA WINKLER | 4,200 | 0
5-29 | pt 10 | 12 | GREGORY TURNER and JESSE F. TURNER, his wife | 4,200 | 0
5-30 | pt 9 | 12 | LUCY BOUNDS | 4,340 | 0
5-31 | pt 8 | 12 | W.A. KOPP and ANITA E. KOPP, his wife | 4,900 | 0
5-32 | pt 8 | 12 | MOSES HUGHES and GEORGE A. HUGHES, his wife | 3,500 | 0
5-33 | pt 1 | 12 | SIDNEY THORNTON and BELLA THORNTON, his wife | 4,200 | 0
5-34 | pt 2 | 12 | WILLIAM C. TROUT and NORA TROUT, his wife | 5,600 | 0
5-35 | pt 3 | 12 | ROSTER COLLEGE and JOHN MCALLIST, his wife | 1,560 | 0
5-36 | pt 3 | 12 | EDWIN T. DIERON | 3,920 | 0
5-37 | pt 3 | 12 | CHARITY PANNELL | 3,920 | 0
5-38 | pt 4 | 6 | (ILLEGIBLE) | 3,430 | 0
5-39 | pt 4 | 6 | HAROLD H. BAKER | 770 | 0
5-40 | pt 4 | 6 | (ILLEGIBLE) WOMAN and ANDREW WOMAN, his wife | 4,200 | 0
5-41 | All | 13 | CITY OF EAST ST. LOUIS | 81,000 | 0
5-42 | pt 6 | 5 | JAMES H. OLDHAM and ESTHER OLDHAM, his wife | 2,100 | 0
5-43 | pt 6 | 5 | ROBERT E. EASTERN and INEZ EASTERN, his wife | 3,150 | 0
5-44 | pt 8 | 5 | ALLEN J. DIXON and LUCILLE DIXON, his wife | 4,200 | 0
5-45 | pt 9 | 12 | HERBERT E. HOTTES | 4,060 | ?
5-46 | pt 10 | 6 | ELIZABETH CAMPBELL, et. al. | 1,540 | ?
5-47 | pt 8 pt 9 | 6 | ROSHELLER MARIE NELSON | 5,600 | ?
5-50 | 1 | 7 | JACK GIGGER and WILLIE GIGGER, his wife | 731 | 7,469
5-51 | pt 1 | 14 | J.P. DRURY | 2,060 | 2,140
5-52 | pt 4, pt 5 | 12 | ARTHUR TUCKER and ETHEL TUCKER his wife | 1,336 | 2,864
5-53 | pt 2 | 5 | HERBERT E. HOTTES | 9240 | 0
5-54 | pt 3 | 5 | HERBERT E. HOTTES | 4,200 | 0
5-55 | pt 5 | 5 | HERBERT E. HOTTES | 21,000 | 0
5-56 | pt 5 | 14 | ELORA ROGERS and ZAAS MAE ROGERS, his wife | 696 | 2,384
5-57 | 5 | 14 | LOUIS D HUGES and CHERRY L HUGES, his wife | 1,243 | 7,157
5-60 | pt pt 7 | 12 | HERBERT E. HOTTES | 912 | 7,488
5-60A | pt pt 7 | 12 | HERBERT E. HOTTES | 2,207 | 1,993
5-61 | pt 6 | 12 | EMMA L. VEACH | 90 | 5,250
(1) & (2) BK. OF PLATS, 'C', PAGES 34 & 35
LEGEND
—AC— Access Control and Right of Way line
—P— Property line
—— Same Owner
—— Existing R.O.W. line
(100') Record & dimension
100' Measured dimension
SL Lot Number
R Res. Dentist
C Commercial
G Garage
S Shed
2S= 2 Stories
F Frame
B Brick
CB Concrete Block
—AC— Access Control Line
I hereby certify that this is a correct Plat showing the Right of Way required for a highway known as Federal Aid Interstate Route 70, located in the City of East St. Louis, St. Clair County, Illinois, as now surveyed and staked out by H.W. Lochner, Inc. for the department of Public Works and Buildings of the State of Illinois
by _____ Illinois Land Surveyor 985 Date
Approved _____ District Engineer Date
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
F.A.I. ROUTE 70
RIGHT OF WAY PLAN
TRENDLEY AVE. TO BOND AVE.
SCALE 1" = 50'
H.W. LOCHNER INC.
ENGINEERS
CHICAGO, ILL.
FOR INFORMATION ONLY
TRENDLEY AVENUE
EDGAR AMES ADDITION
RAILROAD
SOUTHERN
BLOCK 4
BLOCK 5
BLOCK 6
BLOCK 7
BLOCK 12
BLOCK 13
BLOCK 14
STREET
ILLINOIS
AVENUE
MARKET
BOND
TOWN OF ILLINOIS
See Sheet No 4
See Sheet No 6
L RDWY B STA 84+37.03
L RDWY B STA 93+20.39
℄ RAMP T
℄ RDWY 'H'
℄ RAMP 'S'
℄ RAMP 'T' STA 18+26.96
℄ RDWY 'H' PT STA 88+84.19
12° SHIFT
RDWY 'H' STA 89+95.53
PT STA 61+00.12
PC STA 3+00.11
℄ RAMP 'S' PC STA 0+00
℄ RDWY 'I' STA 89+86.19
℄ RDWY 'H'
℄ RAMP 'V'
℄ RDWY 'B'
℄ RDWY 'C'
℄ RAMP 'U'
℄ RDWY 'G'

REFERENCE TIES TO TRAVERSE LINE

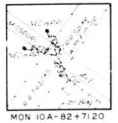

MON 3C-0+00.00 ℄ 324+91.27

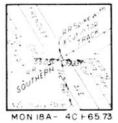

MON 9A-74+48.66

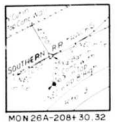

MON 17A-133+44.75


MON 25A-199+95.30


MON 4A-5+99.85


MON 10A-82+71.20

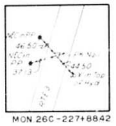

MON 18A-40+65.73

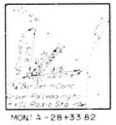

MON 26A-208+30.32

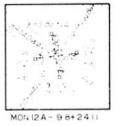

MON 4C-22+31.74


MON 11A-89+41.11


MON 19A-149+13.87


MON 26C-227+88.42

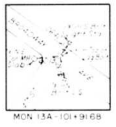

MON 1A-28+33.82


MON 12A-98+24.11


MON 20A-50+05.44


MON 1A-259+44.75


MON 6A-40+39.09

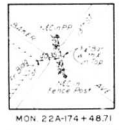

MON 13A-101+91.68

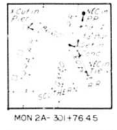

MON 21A-165+46.42

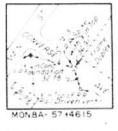

MON 1C-28+52.71

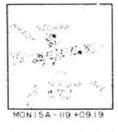

MON 7A-46+65.51

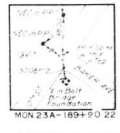

MON 14A-111+76.44


MON 22A-174+48.71


MON 2A-30+76.45

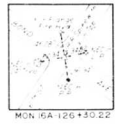

MON 8A-57+46.15

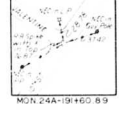

MON 15A-119+09.19


MON 23A-189+90.22


MON 3A-318+79.22


MON 8C-66+31.70


MON 16A-126+30.22


MON 24A-191+60.89

LIST OF BENCH MARKS

FEDERAL-AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3H,BR	ST. CLAIR	247	10
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

B.M. (S & P) ELEV. 413.010
X CUT ON TOP OF BRIDGE PIER WALL
STA. 53+35.27 (F. A.I. 55 & 70) CENTERLINE

B.M. #6 ELEV. 415.721
R.R. SPIKE IN EAST FACE OF POWER POLE ON N. W. CORNER OF 5TH ST. & TRENDLEY AVE.

B.M. #7 ELEV. 416.506
R.R. SPIKE IN NORTH FACE OF POWER POLE ON N. SIDE OF 6TH ST. (44' N.E. OF MONUMENT 7A)

B.M. #8 ELEV. 417.048
X CUT IN S.E. BOLT ON TOP FLANGE OF FIRE HYDRANT (CORNER OF MAIN ST. & CONVERSE AVE.)

B.M. #9 ELEV. 426.281
R.R. SPIKE IN EAST FACE OF POWER POLE 15' N.W. OF CONCRETE MONUMENT 9A.

B.M. #10 ELEV. 419.235
U.S.C. & G.S. MONUMENT R 146 1949 ON S. E. CORNER CONCRETE ABUTMENT OF VETERANS BRIDGE ON N. SIDE OF MISSOURI AVE.

B.M. #11 ELEV. 417.395
X-CUT IN BOLT OF LIGHT STANDARD ON S.E. CORNER OF MISSOURI AVE. & MAIN ST.

B.M. #12 ELEV. 418.980
X-CUT IN BOLT ON TOP FLANGE OF FIRE HYDRANT ON N. E. CORNER OF MAIN ST. & BROADWAY AVE.

B.M. #13 ELEV. 416.575
X-CUT IN S. W. BOLT OF LIGHT STANDARD ON S. E. CORNER OF 4TH ST. & BROADWAY AVE.

B.M. #14 ELEV. 412.067
R.R. SPIKE IN NORTH FACE OF POWER POLE ON S. E. CORNER OF 4TH ST. & BRADY AVE.

B.M. #15 ELEV. 412.016
X-CUT IN N. E. BOLT ON TOP FLANGE OF FIRE HYDRANT ON S. E. CORNER OF 6TH ST. & BRADY.

B.M. #16 ELEV. 412.182
R.R. SPIKE IN EAST FACE OF POWER POLE ON S. W. CORNER OF 6TH ST. & BOND AVE.

B.M. #17 ELEV. 413.118
X-CUT IN EAST END OF FIRST STEP ON N. SIDE OF FRANKLIN PUBLIC SCHOOL

B.M. #18 ELEV. 414.526
R.R. SPIKE IN NORTH FACE OF POWER POLE ON S. W. CORNER OF 8TH ST. & TRENDLEY AVE.

B.M. #19 ELEV. 411.788
R.R. SPIKE IN SOUTH FACE OF POWER POLE ON S. W. CORNER OF 10TH ST. & TRENDLEY AVE.

B.M. #20 ELEV. 407.592
R.R. SPIKE IN S. FACE POWER POLE ON N. E. CORNER OF 13TH ST. & TRENDLEY AVE.

B.M. #21 ELEV. 410.879
R.R. SPIKE IN WEST FACE OF POWER POLE ON N. W. CORNER OF 14TH ST. AND BAKER AVE.

B.M. #22 ELEV. 412.554
R.R. SPIKE IN SOUTH FACE OF POWER POLE ON N. W. CORNER OF 16TH ST. & VALENTINE AVE.

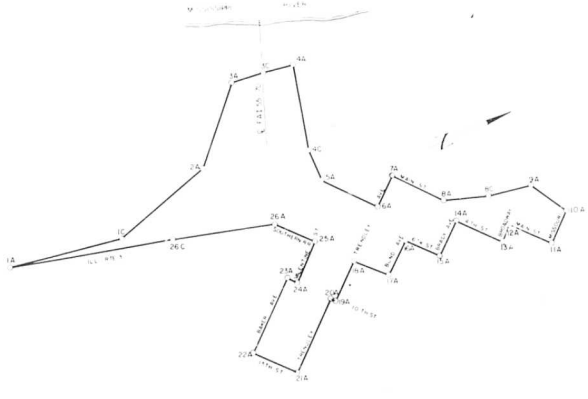
B.M. #23 ELEV. 420.107
X-CUT IN TOP R.R. RAIL DRIVEN VERTICALLY & MARKED MH#6 (41.59' E. OF CONC. MON. 25A)

B.M. #24 ELEV. 415.536
X-CUT IN TOP OF CONCRETE RETAINING WALL (47.20' WEST OF CONC. MON 26A)

B.M. #25 ELEV. 410.214
R.R. SPIKE IN POWER POLE ON THE EAST SIDE OF ROUTE 3 & McARTHUR BRIDGE

B.M. #26 ELEV. 404.196
X-CUT IN N. W. CORNER OF CONCRETE ABUTMENT @ CENTER PIER OF ILL. CENTRAL R. R. BRIDGE OVER ILL. RTE. 3.

TRAVERSE POINT	ELEVATION
1C	399.930
2A	420.178
3A	414.060
4C	414.200
4A	414.537
5A	417.721
18A	415.048

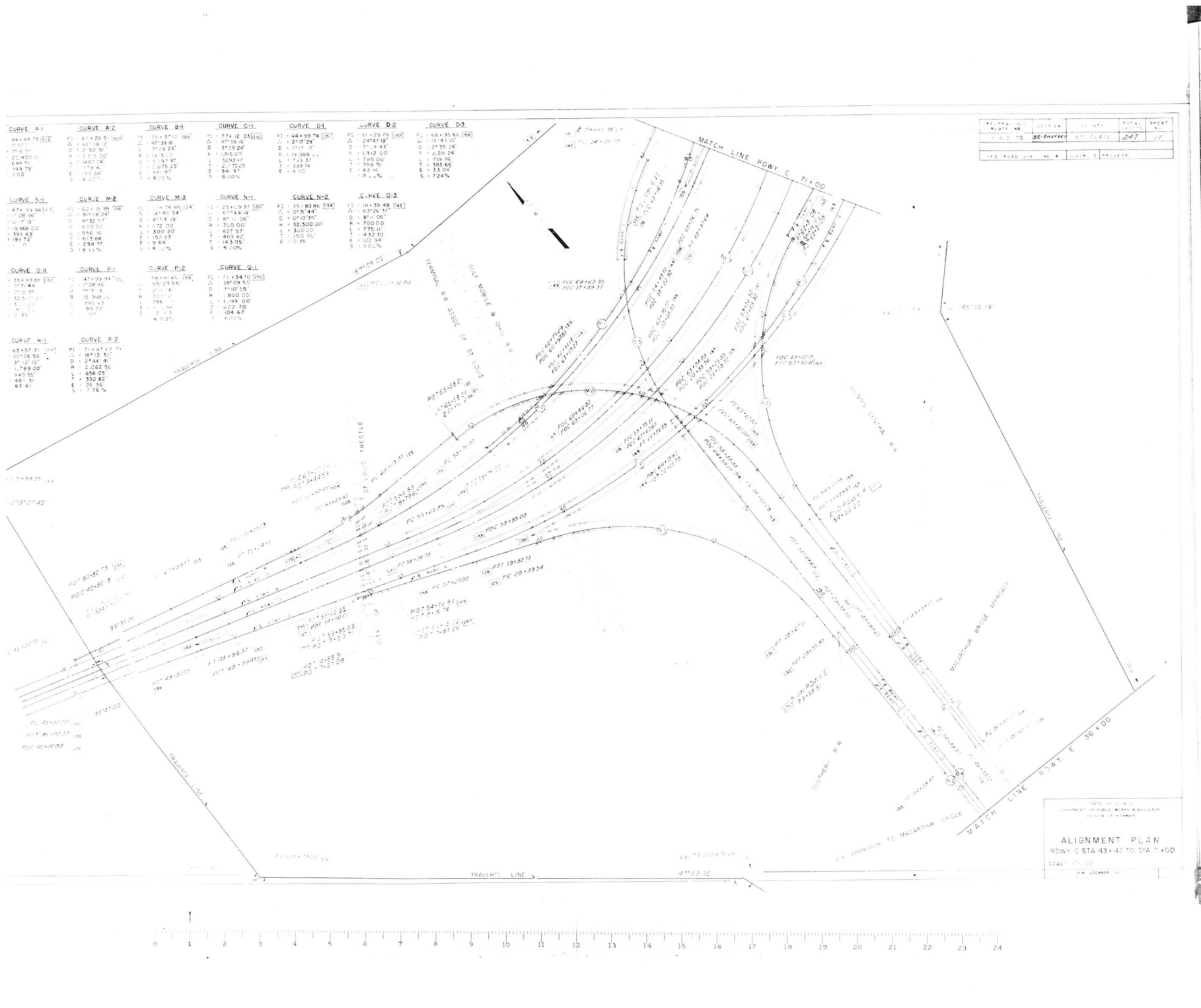


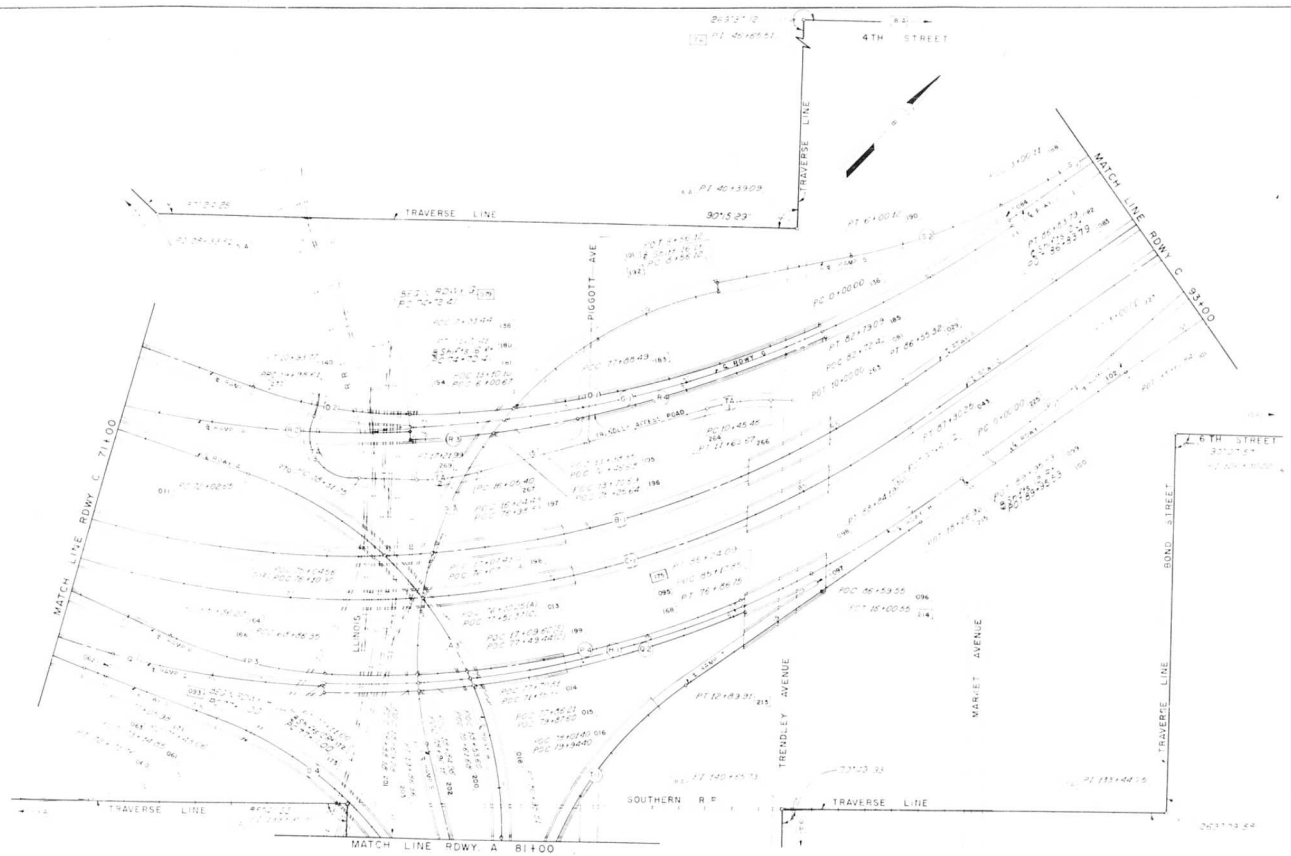
GENERAL PLAN OF TRAVERSE LINE
SCALE 1"=1000'

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

REFERENCE TIES TO TRAVERSE LINE
LIST OF BENCH MARKS
GENERAL PLAN OF TRAVERSE LINE

H. W. LOCHNER INC
ENGINEERS
CHICAGO, ILL.


MATCH LINE RDWY C 71+00
MATCH LINE RDWY E 36+00
TRAVERSE LINE
TERMINAL R.R. ASSOC. OF ST. LOUIS
GULF MOBILE & OHIO R.R.
ST. LOUIS TRESTLE
MACARTHUR BRIDGE APPROACH
ILLINOIS CENTRAL R.R.
SOUTHERN R.R.
N.W. APPROACH TO MACARTHUR BRIDGE
ALIGNMENT PLAN
RDWY C STA 43+42 TO STA 71+00
SCALE 1"=100'
H.W. LOCHNER INC.
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3H/82-1	ST. CLAIR	247	12

FED. ROAD DIV. NO. 4 ILLINOIS PROJECT

CURVE A-3
PI = 77+20.08 (177)
Δ = 72°55'12"
D = 8°11.06'
R = 700.00'
L = 891.16'
T = 517.43'
E = 170.48'
S = 8.00%

CURVE B-1
PI = 76+37.10 (18)
Δ = 97°39.16'
D = 3°09.24'
R = 1,815.00'
L = 3,093.47'
T = 2,075.25'
E = 941.97'
S = 8.00%

CURVE C-1
PI = 77+12.03 (182)
Δ = 97°39.16'
D = 3°09.24'
R = 1,815.00'
L = 3,093.47'
T = 2,075.15'
E = 941.97'
S = 8.00%

CURVE D-4
PI = 80+23.10 (184)
Δ = 68°54.17"
D = 8°11.06'
R = 700.00'
L = 841.93'
T = 480.24'
E = 148.90'
S = 8.00%

CURVE G-1
PI = 80+94.76 (186)
Δ = 32°23.22"
D = 2°40.26'
R = 2,142.90'
L = 1,211.39'
T = 622.36'
E = 88.55'
S = 8.00%

CURVE H-1
PI = 83+18.82 (194)
Δ = 36°57.31"
D = 3°09.01'
R = 1,818.76'
L = 1,173.19'
T = 607.82'
E = 98.88'
S = 8.00%

CURVE O-1
PI = 4+02.17 (147)
Δ = 23°05.03"
D = 2°54.34'
R = 1,969.33'
L = 793.44'
T = 402.17'
E = 40.65'

CURVE O-2
PI = 9+45.26 (159)
Δ = 20°42.27"
D = 6°53.41'
R = 831.00'
L = 300.33'
T = 151.82'
E = 13.76'
S = 8.00%

CURVE P-3
PI = 67+38.03 (165)
Δ = 21°04.14"
D = 7°01.18'
R = 816.00'
L = 300.08'
T = 151.76'
E = 13.99'
S = 8.00%

CURVE P-4
PI = 72+93.70 (167)
Δ = 26°15.16"
D = 3°16.49'
R = 1,746.72'
L = 800.40'
T = 407.35'
E = 46.87'

CURVE Q-1
PI = 71+34.70 (170)
Δ = 38°09.55"
D = 5°10.59'
R = 1,100.00'
L = 1,199.00'
T = 622.70'
E = 104.67'
S = 8.00%

CURVE Q-2
PI = 81+25.90 (174)
Δ = 24°35.11"
D = 3°01.26'
R = 1,894.61'
L = 813.09'
T = 412.90'
E = 44.47'

CURVE R-2
PI = 71+47.17 (175)
Δ = 16°13.30"
D = 2°44.41'
R = 2,061.50'
L = 656.05'
T = 330.82'
E = 26.36'
S = 7.76%

CURVE R-3
PI = 76+30.85 (182)
Δ = 10°05.40"
D = 3°10.59'
R = 1,800.00'
L = 316.08'
T = 158.45'
E = 6.96'

CURVE R-4
PI = 80+34.59 (184)
Δ = 10°19.45"
D = 2°18.33'
R = 2,481.19'
L = 490.60'
T = 246.10'
E = 12.18'

CURVE S-1
PI = 11+50.27 (187)
Δ = 7°34.04"
D = 2°31.18'
R = 2,272.14'
L = 300.11'
T = 150.27'
E = 4.96'

CURVE S-2
PI = 44+51.12 (189)
Δ = 16°11.09"
D = 5°23.42'
R = 1,062.00'
L = 300.01'
T = 151.04'
E = 10.68'
S = 8.00%

CURVE S-3
PI = 15+87.49 (193)
Δ = 92°30.40"
D = 8°11.06'
R = 700.00'
L = 1,130.24'
T = 731.37'
E = 312.38'
S = 8.00%

CURVE T-1
PI = 10+04.42 (212)
Δ = 50°13.06"
D = 8°11.06'
R = 700.00'
L = 613.53'
T = 328.04'
E = 73.05'
S = 8.00%

CURVE V-1
PI = 14+50.16 (226)
Δ = 6°26.56"
D = 2°08.59'
R = 2,665.15'
L = 300.00'
T = 150.16'
E = 4.23'

CURVE T A-1
PI = 13+05.00 (265)
Δ = 16°56.05"
D = 14°19.26'
R = 400.00'
L = 118.22'
T = 59.54'
E = 4.41'
S = NORMAL CROWN

CURVE T A-2
PI = 16+64.11 (268)
Δ = 16°42.00"
D = 14°19.26'
R = 400.00'
L = 116.59'
T = 58.71'
E = 4.29'
S = NORMAL CROWN

CURVE T A-3
PI = 19+46.25 (271)
Δ = 100°38.00"
D = 60°18.41'
R = 95.00'
L = 166.86'
T = 114.50'
E = 57.78'
S = NORMAL CROWN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ALIGNMENT PLAN

ROADWAY C STA 71+00 TO STA 93+00

SCALE 1" = 100'

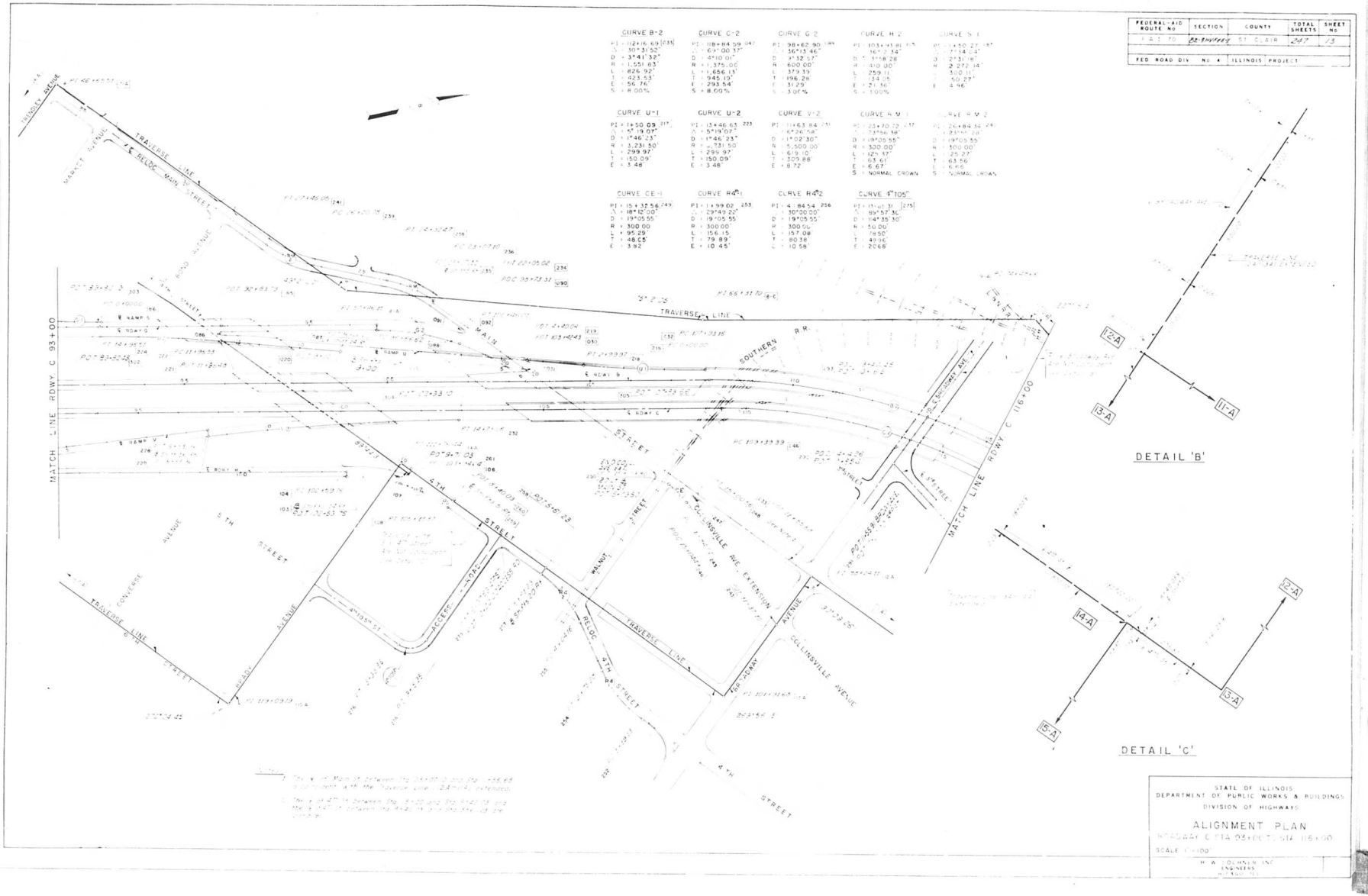
H. A. LOCHMANN SR.
ENGINEER
BASTROP, TEXAS

FEDERAL-AID ROUTE No	SECTION	COUNTY	TOTAL SHEETS	SHEET No
F A I 70	82-3HVPRY	ST CLAIR	247	13
FED ROAD DIV No 4	ILLINOIS	PROJECT		

CURVE B-2	CURVE C-2	CURVE G-2	CURVE H-2	CURVE S-1
PI = 112+16.69 [033]	PI = 118+84.59 [047]	PI = 98+62.90 [189]	PI = 103+43.81 [105]	PI = 1+50.27 [187]
Δ = 30°31'52"	Δ = 69°00.37"	Δ = 36°13'46"	Δ = 36°12'34"	Δ = 7°34'04"
D = 3°41'32"	D = 4°10'01"	D = 9°32'57"	D = 3°58'28"	D = 2°31'18"
R = 1,551.83'	R = 1,375.00'	R = 600.00'	R = 410.00'	R = 2,272.14'
L = 826.92'	L = 1,656.13'	L = 379.39'	L = 259.11'	L = 300.11'
T = 423.53'	T = 945.19'	T = 196.28'	T = 134.05'	T = 150.27'
E = 56.76'	E = 293.54'	E = 31.29'	E = 21.36'	E = 4.96'
S = 8.00%	S = 8.00%	S = 3.00%	S = 3.00%	

CURVE U-1	CURVE U-2	CURVE V-2	CURVE R-M-1	CURVE R-M-2
PI = 1+50.09 [217]	PI = 13+46.63 [223]	PI = 11+63.84 [231]	PI = 23+70.72 [237]	PI = 26+84.34 [240]
Δ = 5°19'07"	Δ = 5°19'07"	Δ = 6°26'58"	Δ = 23°56'38"	Δ = 23°56'38"
D = 1°46'23"	D = 1°46'23"	D = 1°02'30"	D = 19°05'55"	D = 19°05'55"
R = 3,231.50'	R = 3,231.50'	R = 5,500.00'	R = 300.00'	R = 300.00'
L = 299.97'	L = 299.97'	L = 619.10'	L = 125.37'	L = 125.27'
T = 150.09'	T = 150.09'	T = 309.88'	T = 63.61'	T = 63.56'
E = 3.48'	E = 3.48'	E = 8.72'	E = 6.67'	E = 6.66'
			S = NORMAL CROWN	S = NORMAL CROWN

CURVE CE-1	CURVE R4th-1	CURVE R4th-2	CURVE 4th-105"
PI = 15+32.56 [249]	PI = 1+99.02 [253]	PI = 4+84.54 [256]	PI = 13+62.31 [275]
Δ = 18°12'00"	Δ = 29°49'22"	Δ = 30°00'00"	Δ = 89°57'30"
D = 19°05'55"	D = 19°05'55"	D = 19°05'55"	D = 114°35'30"
R = 300.00'	R = 300.00'	R = 300.00'	R = 50.00'
L = 95.29'	L = 156.15'	L = 157.08'	L = 78.50'
T = 48.05'	T = 79.89'	T = 80.38'	T = 49.96'
E = 3.82'	E = 10.45'	E = 10.58'	E = 20.68'



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ALIGNMENT PLAN

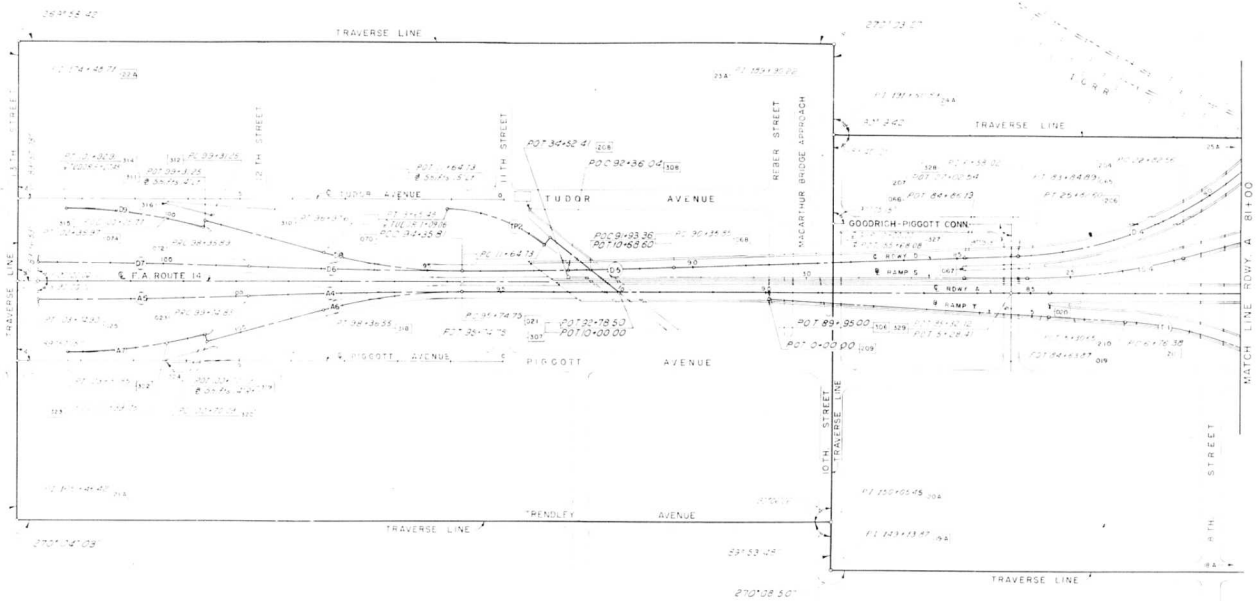
ROADWAY C STA 93+00 TO STA 116+00

SCALE 1" = 100'

H. W. LOCHNER INC
ENGINEERS
HICKSVILLE

FEDERAL-AID ROUTE No	SECTION	COUNTY	TOTAL SHEETS	SHEET No
F.A.I. 14	82-3HP&E	ST. CLAIR	247	14
FED. ROAD DIV. No. 4	ILLINOIS PROJECT			

CURVE D-4	CURVE D-5	CURVE S-4	CURVE T-1
PI = 80+23.30 [064]	PI = 92+35.85 [069]	PI = 24+33.45 [268]	PI = 10+04.42 [212]
Δ = 68°54'17"	Δ = 17°59'12"	Δ = 15°05'12"	Δ = 50°13'06"
D = 8°11'06"	D = 0°29'48"	D = 5°01'41"	D = 8°11'06"
R = 700.00'	R = 11,535.00'	R = 1,139.50'	R = 700.00'
L = 841.83'	L = 399.96'	L = 300.04'	L = 613.53'
T = 480.24'	T = 200.00'	T = 150.89'	T = 328.04'
E = 148.90'	E = 1.73'	E = 9.95'	E = 73.05'
S = 8.00%		S = 8.00%	S = 8.00%



CURVE D-6	CURVE D-8	CURVE A-4	CURVE A-6	CURVE TP-1
PI = 96+35.87 [071]	PI = 95+67.46 [309]	PI = 97+74.81 [102]	PI = 97+06.40 [100]	PI = 7+55.04
Δ = 27°08'54"	Δ = 15°00'00"	Δ = 27°08'54"	Δ = 15°00'00"	Δ = 38°19'51"
D = 0°32'13"	D = 5°43'46"	D = 0°32'13"	D = 5°43'46"	D = 11°27'33"
R = 10,670.00'	R = 1,000.00'	R = 10,670.00'	R = 1,000.00'	R = 500.00'
L = 400.08'	L = 261.80'	L = 400.08'	L = 261.80'	L = 334.50'
T = 200.06'	T = 131.65'	T = 200.06'	T = 131.65'	T = 173.78'
E = 1.88'	E = 8.63'	E = 1.88'	E = 8.63'	E = 29.34'
S = NORMAL CROWN		S = NORMAL CROWN		

CURVE TP-2	CURVE D-7	CURVE D-9	CURVE A-5	CURVE A-7
PI = 102+69.03	PI = 101+35.95 [073]	PI = 100+62.83 [107]	PI = 101+74.89 [024]	PI = 102+01.72 [301]
Δ = 38°20'27"	Δ = 27°08'54"	Δ = 14°59'31"	Δ = 27°08'54"	Δ = 14°59'51"
D = 9°05'55"	D = 0°32'13"	D = 5°43'46"	D = 0°32'13"	D = 5°43'46"
R = 500.00'	R = 10,670.00'	R = 1,000.00'	R = 10,670.00'	R = 1000.00'
L = 200.75'	L = 400.08'	L = 261.66'	L = 400.08'	L = 261.76'
T = 4.30'	T = 200.06'	T = 131.58'	T = 200.06'	T = 131.63'
E = 1.61'	E = 1.88'	E = 8.62'	E = 1.88'	E = 8.63'
	S = NORMAL CROWN		S = NORMAL CROWN	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ALIGNMENT PLAN

ROADWAY A STA. 81+00 TO STA. 103+74.90

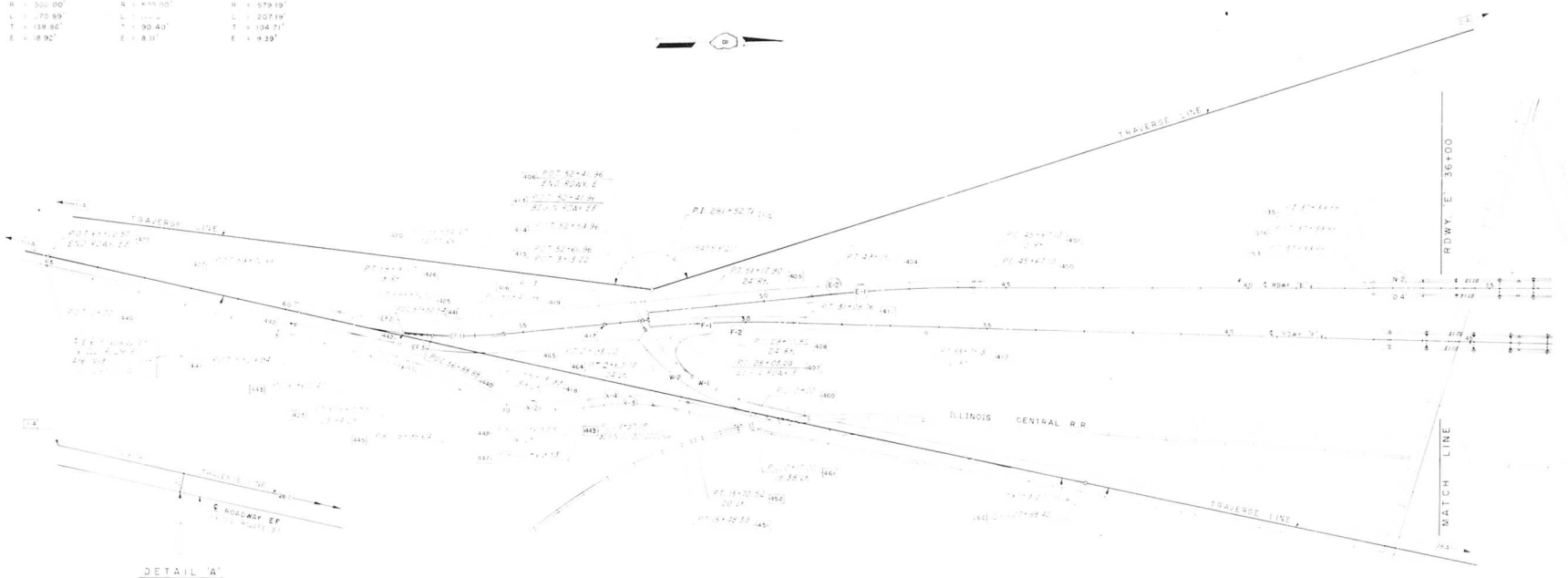
SCALE 1" = 100'

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

CURVE E-1	CURVE E-2	CURVE F-1	CURVE F-2	CURVE E.F.-1	CURVE E.F.-3	CURVE E.F.-2	CURVE N-2	CURVE S-4	CURVE W-1	CURVE W-2	CURVE X-1
P.I.= 47+36.28 [402]	P.I.= P.O.C.48+31.82 [453]	P.I.= 29+56.22 [409]	P.I.=P.O.T. 31+43.81 [419]	P.I.= 55+99.25 [422]	P.I.=P.O.C.57+62.87 [424]	P.I.=P.O.C.56+36.66 [421]	P.I.= 35+89.88 [434]	P.I.= 55+89.88 [54]	P.I.=53+55.463	P.I.= P.O.C. +38.49 [462]	P.I.=7+82.69 [448]
Δ = 6°27'19"	D = 6°27'19"	Δ = 7°57'29"	Δ = 5°09'19"	Δ = 16°00'00"	Δ = 18°00'00"	Δ = 18°00'00"	Δ = 0°31'44"	Δ = 0°31'44"	Δ = 42°00'00"	Δ = 37°15'07"	= 7°31'11"
D = 1°54'35"	D = 1°10'05"	D = 2°35'16"	D = 1°04'51"	D = 5°43'46"	D = 7°09'43"	D = 7°09'43"	D = 0°10'35"	D = 0°10'35"	D = 14°19'26"	D = 14°31'.3"	D = 15°2.59"
R = 3,000.00'	R = 4,904.72'	R = 2,200.00'	R = 5,142.41'	R = 1,000.00'	R = 800.00'	R = 800.00'	R = 32,500.00'	R = 32,500.00'	R = 400.00'	R = 394.59'	R = 1,850.00'
L = 338.00'	L = 552.39'	L = 305.57'	L = 462.70'	L = 314.16'	L = 251.33'	L = 251.33'	L = 300.00'	L = 300.00'	L = 293.22'	L = 256.55'	L = 234.24'
T = 169.18'	T = 276.59'	T = 153.03'	T = 231.50'	T = 158.38'	T = 126.71'	T = 126.71'	T = 150.00'	T = 150.00'	T = 153.55'	T = 132.35'	T = 117.23'
E = 4.77'	E = 7.79'	E = 5.32'	E = 5.21	E = 12.47'	E = 9.97'	E = 9.97'	E = 0.35'	E = 0.35'	E = 28.46'	E = 21.81'	E = 3.04'

CURVE X-2	CURVE X-3	CURVE X-4
P.I. = 10+37.50 [446]	P.I. = 12+59.93 [449]	P.I. = P.O.C.12+69.64 [450]
Δ = 31°02'30"	Δ = 20°29'46"	Δ = 20°29'46"
D = 11°27'33"	D = 11°27'33"	D = 11°27'33"
R = 500.00'	R = 500.00'	R = 579.19'
L = 270.89'	L = 178.89'	L = 207.19'
T = 138.86'	T = 90.40'	T = 104.71'
E = 18.92'	E = 8.11'	E = 9.39'

FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. 70	(E-3)1(F)(F)	ST. CLAIR	547	15
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ALIGNMENT PLAN

ROADWAY E STA. 36+00 TO STA. 65+02.57

SCALE 1"=100'

H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILL.

FEDERAL-AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3M,1T,R,D	ST. CLAIR	347	16
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			TRAVERSE POINT LOCATIONS
1-A	3,585.015	31,748.167	TRAVERSE POINT
1-C	5,770.707	32,060.956	TRAVERSE POINT
2-A	7,707.391	31,473.777	TRAVERSE POINT
3-A	8,827.340	30,191.148	TRAVERSE POINT
3-C	9,438.510	30,227.520	TRAVERSE POINT
4-A	10,030.665	30,323.293	TRAVERSE POINT
4-C	9,673.297	31,...	TRAVERSE POINT
5-A	9,676.088	31,517.645	TRAVERSE POINT
6-A	10,495.902	33,401.150	TRAVERSE POINT
7-A	10,957.004	32,977.137	TRAVERSE POINT
8-A	11,693.731	33,767.717	TRAVERSE POINT
8-C	12,543.360	34,017.374	TRAVERSE POINT
9-A	13,343.702	34,181.317	TRAVERSE POINT
10-A	13,769.335	34,885.169	TRAVERSE POINT
11-A	13,276.149	35,338.540	TRAVERSE POINT
12-A	12,677.996	34,689.002	TRAVERSE POINT
13-A	12,406.926	34,937.255	TRAVERSE POINT
14-A	11,741.037	34,211.759	TRAVERSE POINT
15-A	11,203.440	34,709.666	TRAVERSE POINT
16-A	10,714.228	34,179.991	TRAVERSE POINT
17-A	10,188.208	34,663.578	TRAVERSE POINT
18-A	9,692.583	34,139.968	TRAVERSE POINT
19-A	9,068.283	34,714.069	TRAVERSE POINT
20-A	9,006.467	34,646.499	TRAVERSE POINT
21-A	7,871.390	35,688.703	TRAVERSE POINT
22-A	7,261.928	35,023.359	TRAVERSE POINT
23-A	8,398.236	33,981.698	TRAVERSE POINT
24-A	8,513.438	34,107.622	TRAVERSE POINT
25-A	9,132.298	33,547.932	TRAVERSE POINT
26-A	8,558.278	32,941.500	TRAVERSE POINT
26-C	6,654.233	32,484.566	TRAVERSE POINT
	(CONTINUED ON SHEET 2)		
			ROADWAY "A"
001	9,554.488	30,010.739	P.C. CURVE A-1
002	9,441.860	30,141.898	P.I. CURVE A-1
003	9,340.648	30,676.723	P.T. CURVE A-1
004	9,209.539	31,110.253	P.O.T. RDWY. "A" NOSE 19° LT.
005	9,227.787	31,115.751	NOSE RDWY. "A" & RAMP "M"
006	9,181.391	31,203.570	P.C. CURVE A-2
007	8,955.809	31,749.832	P.I. CURVE A-2
008	9,286.586	32,641.747	P.O.C. RDWY. "A" NOSE 19° LT.
009	9,103.782	32,635.665	NOSE RDWY. "A" & RAMP "R"
010	9,291.246	32,651.592	P.T. CURVE A-2
011	9,448.297	32,981.090	P.C. CURVE A-3
012	9,516.340	33,274.818	P.O.C. INT. ℄ of RDWY. "A" & RDWY. "B"
013	9,509.797	33,380.221	P.O.C. INT. ℄ of RDWY. "A" & RDWY. "C"
014	9,469.823	33,535.360	P.O.C. INT. ℄ of RDWY. "A" & RAMP "P"
015	9,464.140	33,549.676	P.O.C. INT. ℄ of RDWY. "A" & RDWY. "H"
016	9,458.229	33,563.668	P.O.C. INT. ℄ of RDWY. "A" & RAMP "Q"
017	9,670.926	33,450.174	P.I. CURVE A-3
018	9,289.695	33,800.001	P.T. CURVE A-3
019	9,017.044	34,050.227	P.O.T. RDWY. "A" NOSE 20° LT.
020	9,030.566	34,064.963	NOSE RDWY. "A" & RAMP "T"
021	8,198.565	34,801.328	P.C. CURVE A-4 & 5
022	6,...51.162	34,930.596	P.I. CURVE A-4
023	7,...8.435	35,...7.395	P.R. C. CURVE A-4 & 5
024	7,...4.707	35,217.493	P.I. CURVE A-5
025	7,609.526	35,352.261	P.T. CURVE A-5
			ROADWAY "B"
026	9,531.766	30,003.011	P.O.T. BEGIN RDWY. "B"; BEGIN RDWY. "A" 24° LT.
027	9,061.065	31,187.008	P.C. CURVE B-1
028	8,492.855	33,351.732	P.I. CURVE B-1
029	10,429.078	33,752.290	P.T. CURVE B-1
030	12,084.459	34,077.930	P.O.T. RDWY. "B" NOSE 27° LT.
031	12,089.671	34,051.437	NOSE RDWY "B" & RAMP "U"
032	12,526.713	34,164.928	P.C. CURVE B-2
033	12,942.279	34,246.676	P.I. CURVE B-2
034	13,258.700	34,528.201	P.C.C. CURVE B-2 & 3
035	13,787.672	34,998.836	P.I. CURVE B-3
036	13,942.851	35,689.692	P.T. CURVE B-3
037	13,977.261	35,842.835	P.O.T. END RDWY. "B"
			ROADWAY "C"
038	9,501.471	29,952.707	P.O.T. BEGIN RDWY. "C", BEGIN RDWY. "D" 24° RT.
039	9,243.878	30,750.102	P.O.T. RDWY. "C" NOSE 20° RT.
040	9,224.943	30,743.662	NOSE RDWY. "C" & RDWY. "D"
041	9,006.642	31,447.643	P.C. CURVE C-1
042	8,338.433	33,412.368	P.I. CURVE C-1
043	10,474.655	33,812.925	P.T. CURVE C-1
046	12,542.256	34,239.327	P.C. CURVE C-2
047	13,469.675	34,421.765	P.I. CURVE C-2
048	13,631.545	35,352.994	P.T. CURVE C-2
049	13,670.326	35,576.100	P.O.T. END RDWY "C"
			ROADWAY "D"
050	9,478.749	29,984.979	P.C. CURVE D-1; BEGIN RDWY. "D"
051	9,350.018	30,363.427	P.I. CURVE D-1
052	9,206.298	30,736.426	P.T. CURVE D-1
053	9,206.281	30,736.470	P.O.T. RDWY. "D" NOSE 20° LT.
054	8,906.611	31,508.701	P.C. CURVE D-2
055	8,855.631	31,668.038	P.O.C. RDWY. "D" NOSE 20° RT.
056	8,836.384	31,662.605	NOSE RDWY "D" & RAMP "N"
057	8,765.306	31,860.787	P.I. CURVE D-2
058	8,791.367	32,278.692	P.C.C. CURVE D-2 & 3; BEGIN RAMP "Q" 12° LT.
059	8,816.441	32,661.531	P.I. CURVE D-3
060	8,969.015	33,014.548	P.T. CURVE D-3
061	8,986.151	33,053.085	P.O.T. RDWY "D" NOSE 20° LT.
062	9,004.502	33,045.131	NOSE RDWY "D" & RAMP "Q"
063	9,076.907	33,262.474	P.C. CURVE D-4
064	9,267.890	33,703.106	P.I. CURVE D-4
065	8,925.526	34,039.882	P.T. CURVE D-4
066	8,853.313	34,110.916	P.O.T. RDWY. "D" NOSE 19° LT.
067	8,866.638	34,124.461	NOSE RDWY "D" & RAMP "S"
068	8,461.458	34,496.376	P.C. CURVE D-5
069	8,318.877	34,636.630	P.I. CURVE D-5
070	8,171.519	34,771.857	P.C.C. CURVE D-5 & 6 & 6
071	8,024.117	34,907.125	P.I. CURVE D-6
072	7,871.748	35,036.772	P.R. C. CURVE D-6 & 7
073	7,719.379	35,166.419	P.I. CURVE D-7
074	7,571.577	35,301.687	P.T. CURVE D-7
			ROADWAY "E"
075	8,062.906	32,133.039	NOSE & BEGIN ROADWAY "E"
076	7,263.307	32,105.853	P.O.T. RDWY. "E" END RAMP "N" 12° RT. END RAMP "O" 12° LT.
			ROADWAY "F"
077	8,357.753	32,276.740	NOSE & END ROADWAY "F"
078	7,559.424	32,228.611	P.O.T. RDWY. "F" BEGIN RAMP "M" 12° LT. BEGIN RAMP "F" 12° RT.
			ROADWAY "G"
079	9,722.515	33,140.019	NOSE & P.C. CURVE G-1 BEGIN RDWY. "G"
080	10,173.819	33,568.565	P.I. CURVE G-1
081	10,390.904	33,571.150	P.O.C. RDWY. "G", BEGIN RAMP "O" 12° LT., END RAMP "R" 12° RT.
082	10,784.471	33,688.690	P.T. CURVE G-1 ℄ SHIFTS 12' LT. TO 083
083	10,786.787	33,676.916	P.O.T. RDWY. "G" NOSE 8° LT.
084	10,788.331	33,669.066	NOSE RDWY. "G" & RAMP "S"
085	11,375.504	33,792.726	P.O.T. RDWY. "G" NOSE 19° RT.
086	11,371.837	33,811.368	NOSE RDWY "G" & RAMP "U"
087	11,751.131	33,866.618	P.O.T. RDWY. "G" ℄ SHIFTS 14° RT. TO 088
088	11,748.429	33,880.354	P.C. CURVE G-2
089	11,941.019	33,918.240	P.I. CURVE G-2
090	11,940.444	33,954.053	P.O.C. RDWY. "G" NOSE 32° LT.
091	11,936.861	33,926.586	NOSE RDWY. "G" & RELOC. MAIN
092	12,073.982	34,062.625	P.T. CURVE G-2 END RDWY. "G"
			ROADWAY "H"
093	9,264.459	33,358.652	NOSE & P.C. CURVE H-1 BEGIN RDWY. "H"
094	9,670.480	33,810.971	P.I. CURVE H-1
095	9,916.936	33,821.977	P.O.C. RDWY. "H", END RAMP "P" 12° LT., END RAMP "Q" 12° RT.
096	10,049.688	33,871.447	P.O.C. RDWY. "H" NOSE 19° RT.
097	10,043.752	33,889.496	NOSE RDWY "H" & RAMP "T"
098	10,266.870	33,928.290	P.T. CURVE H-1; END RAMP "T" 24° RT.
099	10,376.109	33,949.780	P.O.T. RDWY. "H" ℄ SHIFTS 12' RT. TO 100

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			ROADWAY "H"
100	10,373.793	33,961.554	P.O.T. RDWY. "H"
101	10,734.205	34,032.453	P.O.T. RDWY. "H" NOSE 20° LT.
102	10,738.063	34,012.828	NOSE RDWY. "H" & RAMP "V"
103	11,614.254	34,205.572	P.O.T. RDWY. "H" ℄ SHIFTS 14° RT. TO 104
104	11,611.552	34,219.309	P.C. CURVE H-2
105	11,743.077	34,245.182	P.I. CURVE H-2
106	11,737.272	34,266.446	P.O.C. RDWY. "H" NOSE 29° LT.
107	11,751.762	34,241.326	NOSE RDWY. "H" & 4TH ST.
108	11,833.916	34,343.755	P.T. CURVE H-2 END RDWY. "H"
			RAMP "M"
109	7,560.147	32,216.633	P.C. CURVE M-1 BEGIN RAMP "M"
110	7,759.505	32,228.652	P.I. CURVE M-1
111	7,959.065	32,236.680	P.T. CURVE M-1
112	8,358.718	32,252.759	P.O.T. RAMP "M" NOSE 24° RT.
113	8,560.973	32,260.896	P.C. CURVE M-2
114	8,788.678	32,225.787	P.O.C. INT. ℄'s RAMP "M" & RDWY "D"
115	8,872.468	32,188.084	P.O.C. INT. ℄'s RAMP "M" & RAMP "O"
116	8,914.692	32,162.744	P.O.C. INT. ℄'s RAMP "M" & RDWY "C"
117	8,970.590	32,121.155	P.O.C. INT. ℄'s RAMP "M" & RDWY "B"
118	9,174.319	32,285.573	P.I. CURVE M-2
119	9,103.040	31,964.252	P.O.C. INT. ℄'s RAMP "M" & RDWY "A"
120	9,114.796	31,943.187	P.O.C. INT. ℄'s RAMP "M" & RAMP "R"
121	9,185.002	31,671.824	P.T. CURVE M-2 ℄ SHIFTS 16' RT. TO 122
122	9,200.999	31,672.102	P.O.T. RAMP "M"
123	9,205.624	31,406.420	P.C. CURVE M-3
124	9,208.251	31,255.515	P.I. CURVE M-3
125	9,246.127	31,120.713	P.O.C. RAMP "M" NOSE 19° LT.
126	9,249.024	31,110.199	P.T. CURVE M-3
			RAMP "N"
127	9,027.324	31,167.486	P.O.T. BEGIN RAMP "N"
128	8,814.404	31,652.966	P.O.T. RAMP "N" NOSE 24° LT.
129	8,794.560	31,698.214	P.C. CURVE N-1
130	8,605.857	32,128.476	P.I. CURVE N-1
131	8,136.177	32,116.847	P.T. CURVE N-1
132	8,063.351	32,115.044	P.O.T. RAMP "N" NOSE 18° LT.
133	7,563.587	32, 102.670	P.C. CURVE N-2
134	7,413.630	32,098.957	P.I. CURVE N-2
135	7,263.714	32,093.860	P.T. CURVE N-2 END RAMP "N"

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

LIST OF COORDINATE POINTS AND DESCRIPTIONS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.



FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	17
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			RAMP "O"
136	10,395.424	33,560.033	P.C. CURVE O-1 BEGIN RAMP "O"
137	10,022.872	33,408.543	P.I. CURVE O-1
138	9,739.548	33,173.112	P.C.C. CURVE O-1 & 2 NOSE 24' LT.
139	9,632.592	33,015.360	P.I. CURVE O-2
140	9,570.645	32,876.749	P.T. CURVE O-2
141	9,442.932	[illegible]	P.O.T. RAMP "O" ℄ SHIFTS 16' LT.
142	9,428.325	3[illegible],597.507	P.C. CURVE O-3
143	9,186.777	32,306.954	P.O.C. INT. ℄ • RAMP "O" & RAMP "R"
144	9,158.717	32,288.570	P.O.C. INT. ℄ • RAMP "O" RDWY. "A"
145	9,251.777	32,202.466	P.I. CURVE O-3
146	8,980.104	32,209.641	P.O.C. INT. ℄ • RAMP "O" & RDWY "B"
147	8,917.104	32,1[illegible]	P.O.C. INT. ℄'s RAMP "O" & RDWY "C"
148	9,819.464	32,183.772	P.T. CURVE O-3
149	8,787.628	32,182.3[illegible]	P.O.T. INT. ℄ • RAMP "O" & RDWY. "D"
150	8,062.128	32,151.022	P.O.T. RAMP "O" NOSE 18' RT.
151	7,562,677	32,129.424	P.C. CURVE O-4
152	7,412.815	32,122.943	P.I. CURVE O-4
153	7,262.8[illegible]	32,117.846	P.T. CURVE O-4 END RAMP "O"
			RAMP "P"
154	7,558.702	32,240.590	P.C. CURVE P-1 BEGIN RAMP "P"
155	7,758.061	32,252.608	P.I. CURVE P-1
156	7,457.140	32,268.612	P.T. CURVE P-1
157	8,355.830	32,300.663	P.O.T. RAMP "P" NOSE 24' [illegible]
158	8,388.180	32,303.263	P.C. CURVE P-2
159	8,836.115	32,339.273	P.I. CURVE P-2
160	8,816.372	32,435.57[illegible]	P.O.C. INT. ℄ • RAMP "P" & RDWY "D"
161	8,834.512	32,513.601	P.O.C. INT. ℄ • RAMP "P" & RAMP "Q"
162	8,989.851	32,761.538	P.T. CURVE P-2 ℄ SHIFTS 16' LT. TO 1[illegible]
163	9,004.885	32,75[illegible].064	P.O.T. RAMP "P"
164	9,126.399	33,089.826	P.C. CURVE P-3
165	9,178.316	33,232.42[illegible]	P.I. CURVE P-3
166	9,27[illegible]	33,[illegible]	P.C.C. CURVE P-3 & 4 NOSE 18' RT.
167	9,545.681	33,653.904	P.I. CURVE 4
168	9,921.5[illegible]	33,810.904	P.T. CURVE 4, END RAMP "P"
			RAMP "Q"
[illegible]	8,803.341	32,277.908	P.C. CURVE Q-1, BEGIN RAMP "Q"
[illegible]	8,844.0[illegible]	32,899.272	P.I. CURVE Q-1
[illegible]	9,[illegible]25.369	33,033.468	P.O.C. RAMP "Q" NOSE 24' RT.
172	9,259.994	33,362.660	P.I. CURVE Q-1 NOSE 6' LT., ℄ SHIFTS 12' RT. TO 173
[illegible]	[illegible]	[illegible]	P.C. CURVE Q-2
[illegible]	[illegible]	[illegible]	P.I. CURVE Q-2
175	[illegible]	33,6[illegible].050	P.T. CURVE Q-2 END RAMP "Q"
			RAMP "R"
[illegible]	[illegible]	32,72[illegible]	P.C. CURVE R-1 BEGIN RAMP "R"
177	[illegible]	[illegible]	P.I. CURVE R-1
178	[illegible]	[illegible]	P.C.C. CURVE R-1 & 2
179	9,4[illegible]	[illegible]	P.I. CURVE R-2

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			RAMP "R"
180	9,717.006	33,145.821	P.T. CURVE R-2 NOSE 8' LT. ℄ SHIFTS 16' RT. TO 181
181	9,705.989	33,157.423	P.C. CURVE R-3
182	9,820.889	33,266.529	P.I. CURVE R-3
183	9,953.082	33,353.884	P.C.C. CURVE R-3 & 4
184	10,156.406	33,489.564	P.I. CURVE R-4
185	10,386.383	33,582.266	P.T. CURVE R-4 END RAMP "R"
			RAMP "S"
186	11,085.817	33,723.510	P.C. CURVE S-1 BEGIN RAMP "S"
187	10,938.369	33,694.504	P.I. CURVE S-1
188	10,796.025	33,646.333	P.C.C. CURVE S-1 & 2 NOSE 24' LT.
189	10,652.983	33,597.925	P.I. CURVE S-2
190	10,529.104	33,511.562	P.T. CURVE S-2
191	10,319.101	33,365.157	P.O.T. ℄ SHIFTS 16' LT. TO 192
192	10,309.951	33,378.283	P.C. CURVE S-3
193	9,709.987	32,960.015	P.I. CURVE S-3
194	9,881.823	33,253.063	P.O.C. INT. ℄ • RAMP "S" & RAMP "O"
195	9,853.629	33,254.754	P.O.C. INT. ℄ • RAMP "S" & RDWY "G"
196	9,821.463	33,258.085	P.O.C. INT. ℄ • RAMP "S" & RAMP "R"
197	9,580.943	33,334.475	P.O.C. INT. ℄ • RAMP "S" & RDWY "B"
198	9,510.142	33,377.694	P.O.C. INT. ℄ • RAMP "S" & RDWY "A"
199	9,508.3[illegible]	33,378.932	P.O.C. INT. ℄ • RAMP "S" & RDWY "C"
200	9,399.[illegible]	33,472.994	P.O.C. INT. ℄ • RAMP "S" & RAMP "P"
201	9,369.047	33,484.537	P.O.C. INT. ℄'S RAMP "S" & RDWY. "H"
202	9,378.[illegible]	33,496.311	P.O.C. INT. ℄ • RAMP "S" & RAMP "Q"
203	9,318.407	33,577.728	P.T. CURVE S-3
204	9,159.822	33,827.894	P.C. CURVE S-4
205	9,079.032	33,955.339	P.I. CURVE S-4
206	8,967.855	34,057.364	P.T. CURVE S-4
207	8,879.484	34,136.460	P.O.T. RAMP "S" NOSE 19' RT.
208	8,326.991	34,645.472	P.O.T. END RAMP "S"
			RAMP "T"
209	8,[illegible].827	34,418.185	P.O.T. BEGIN RAMP "T"
210	9,045.699	34,083.591	P.O.T. RAMP "T" NOSE 24' LT.
211	9,158.809	33,991.704	P.C. CURVE T-1
212	9,413.422	33,784.864	P.I. CURVE T-1
213	9,735.293	33,848.181	P.T. CURVE T-1
214	10,040.085	33,908.138	P.O.T. RAMP "T" NOSE 19' LT.
215	10,262.237	33,951.839	P.O.T. END RAMP "T"
			RAMP "U"
216	12,522.030	34,139.547	P.C. CURVE U-1 BEGIN RAMP "U"
217	12,374.759	34,110.576	P.I. CURVE U-1
218	12,230.807	34,068.079	P.T. CURVE U-1
219	12,096.466	34,028.419	P.O.T. RAMP "U" NOSE 24' LT.
220	[illegible]655.332	33,898.18[illegible]	P.O.T. ℄ SHIFTS 16' LT. TO 1220
1220	[illegible]650.802	33,913.534	P.O.T. RAMP "U"
221	11,366.457	33,829.591	P.O.T. RAMP "U" NOSE 19' RT.

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			RAMP "U"
222	11,366.401	33,829.574	P.C. CURVE U-2
223	11,222.450	33,787.077	P.I. CURVE U-2
224	11,075.179	33,758.107	P.T. CURVE U-2 END RAMP "U"
			RAMP "V"
225	10,442.781	33,950.665	P.C. CURVE V-1 BEGIN RAMP "V"
226	10,590.116	33,979.648	P.I. CURVE V-1
227	10,739.774	33,991.898	P.T. CURVE V-1 NOSE 21' RT.
228	11,291.888	34,037.091	P.O.T. ℄ SHIFTS 16' RT. TO 229
229	11,290.582	34,053.037	P.C. CURVE V-2
231	11,599.428	34,078.318	P.I. CURVE V-2
232	11,903.479	34,138.129	P.T. CURVE V-2 END RAMP "V"
			RELOCATED MAIN STREET
233	12,677.994	34,689.002	P.O.T. BEGIN RELOC. MAIN & TRAVERSE POINT 12-A
234	11,967.160	33,917.102	P.O.T. MAIN ST. NOSE 14' LT.
235	11,898.009	33,842.010	P.O.T. ℄ SHIFTS 5' RT. TO 236
236	11,901.687	33,838.623	P.C. CURVE R.M.-1
237	11,858.594	33,791.829	P.I. CURVE R.M.-1
238	11,800.219	33,766.550	P.T. CURVE R.M.-1
239	11,627.416	33,691.720	P.C. CURVE R.M.-2
240	11,569.090	33,666.463	P.I. CURVE R.M.-2
241	11,526.018	33,619.722	P.T. CURVE R.M.-2
			COLLINSVILLE AVENUE EXTENSION
243	12,572.157	34,785.931	P.O.T. BEGIN COLLINSVILLE EXT.
245	12,428.411	34,469.657	P.C. CURVE CE-1
246	12,419.544	34,451.756	P.O.C. COLLINSVILLE EXT. NOSE 19' RT.
247	12,436.280	34,442.761	NOSE COLLINSVILLE EXT. & MAIN ST.
248	12,444.372	34,435.309	P.O.T. MAIN ST. NOSE 11' LT.
249	12,408.528	34,425.911	P.I. CURVE CE-1
250	12,375.977	34,390.563	P.T. CURVE CE-1 END COLL. AVE. EXT.
			RELOCATED 4TH STREET
252	12,194.655	34,948.914	P.C. CURVE R4-1
253	12,140.200	34,890.000	P.I. CURVE R4-1
254	12,123.189	34,812.055	P.T. CURVE R4-1
255	12,094.941	34,686.315	P.C. CURVE R4-2
256	12,077.321	34,607.885	P.I. CURVE R4-2
257	12,022.847	34,548.773	P.T. CURVE R4-2 ℄ SHIFTS 20' RT TO 258
258	12,037.554	34,535.220	P.O.T. ℄ 4TH STREET
259	11,848.623	34,330.202	P.O.T. ℄ SHIFTS 5' RT. TO 260
260	11,852.300	34,326.814	P.O.T. ℄ 4TH STREET
261	11,763.528	34,230.483	P.O.T. ℄ 4TH STREET NOSE 16' LT.
			TRENDLEY ACCESS ROAD
263	10,257.494	33,620.551	P.O.T. BEGIN TRENDLEY ACCESS ROAD
264	10,226.724	33,587.090	P.C. CURVE T.A.-1
265	10,166.422	33,543.261	P.I. CURVE T.A.-1
266	10,135.100	33,513.070	P.T. CURVE T.A.-1

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
			TRENDLEY ACCESS ROAD
267	9,754.363	33,289.097	P.C. CURVE T.A.-2
268	9,703.759	33,259.329	P.I. CURVE T.A.-2
269	9,663.844	33,216.275	P.T. CURVE T.A.-2
270	9,589,223	33,135.785	P.C. CURVE T.A.-3
271	9,511.381	33,051.821	P.I. CURVE T.A.-3
272	9,608.266	32,990.809	P.R.C. CURVE T.A.-3
			4TH TO 5TH STREET ACCESS ROAD
273	11,945.082	34,434.874	℄ INTS. OF 4TH ST. & 4TH TO 5TH ACCESS ROAD
274	11,712.879	34,648.240	P.C. 4TH TO 5TH ACCESS ROAD
275	11,676.086	34,682.046	P.I. 4TH TO 5TH ACCESS ROAD
276	11,642.256	34,645.280	P.T. 4TH TO 5TH ACCESS ROAD
			RELOCATED 2ND STREET
278	13,736.915	34,914.939	℄ INTS. OF MISSOURI & RELOC. 2ND ST.
279	[illegible]	34,80[illegible] 155	P.C.-1 RELOCATED 2ND STREET
280	[illegible]	[illegible]	P.I.-1 RELOCATED 2ND STREET
281	[illegible]	[illegible]	P.T.-1 RELOCATED 2ND STREET
282	[illegible]	[illegible]	P.C.-2 RELOCATED 2ND STREET
283	13,46[illegible] 896	[illegible]	P.I.-2 RELOCATED 2ND STREET
284	13,42[illegible]	34,580 958	P.T.-2 RELOCATED 2ND STREET
			℄ INTERSECTIONS OF CITY OF ST LOUIS TRESTLE
285	9,016.923	31,191.202	ILL. TERM. R.R. & RAMP "N"
286	9,027.971	31,199.179	ILL. TERM. R.R. & RDWY. "D"
287	9,078.690	31,235.803	ILL. TERM. R.R. & RDWY. "C"
288	9,105.826	31,255.397	ILL. TERM. R.R. & RDWY "B"
289	9,156.793	31,292.200	ILL. TERM. R.R. & RDWY "A"
290	9,209.435	31,330.213	ILL. TERM. R.R. & RAMP "M"
			℄ INTERSECTIONS OF CROSS ROADS
291	12,931.515	34,456.354	℄ BRDWY AVE & 3RD ST.
292	12,983.317	34,408.835	℄ BRDWY AVE & RDWY "C"
293	13,034.241	34,362.120	℄ BRDWY AVE & RDWY "B"
294	13,555.127	35,081.862	℄ MISSOURI AVE & RDWY "C"
295	13,653.137	34,991.866	℄ MISSOURI AVE & RDWY "B"
			MISCELLANEOUS POINTS
296	9,507.993	30,187.240	END RAMP "M"
297	9,496.506	30,183.768	P.O.C. RDWY "A", END RAMP "M" 12' LT.
298	9,038.521	31,171.801	P.O.T. RDWY. "D" BEGIN RAMP "N" 12' RT.
299	9,096.256	31,721.224	P.O.C. RDWY. "A" BEGIN RAMP "R" 12' LT.
300	9,320.517	32,626.669	P.O.C. RAMP "R" NOSE 19' RT.

STATE OF ILLINOIS
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LIST OF COORDINATE POINTS AND DESCRIPTIONS

H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILL.

FEDERAL-AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-5WRR-1	ST. CLAIR	247	18
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
		MISCELLANEOUS POINTS	
301	10,438.148	33,974.214	P.O.T. RDWY. "H" BEGIN RAMP "V" 24' LT.
302	11,079.811	33,734.558	P.O.T. RDWY. "G" END RAMP "U" 24' RT.
303	11,083.501	33,735.284	P.O.T. RDWY. "G" BEGIN RAMP "S" 12' LT.
304	11,908.111	34,114.581	P.O.T. RDWY. "C" END RAMP "V" 24' RT.
305	12,517.397	3 . 45	P.O.T. RDWY. "B" BEGIN RAMP "U" 24' LT.
306	8,825.713	34,409.343	P.O.T. RDWY. "A" BEGIN RAMP "T" 17' LT.
307	8,185.042	34,786.593	℄ F.A. 14, 20° LT. OF P.C.C. D-5 B.E.
308	8,317.532	34,635.516	P.O.C. RDWY. "D" END RAMP 13.73'LT.
		TEMPORARY ROADWAY "D"	
309	8,074.520	34,860.871	P.T. CURVE D-8 TEMP. RDWY. D
310	7,957.787	34,921.747	P.T. CURVE D-8 TEMP. RDWY. D
311	7,750.626	35,029.782	POT. TEMP. RDWY. D & SHIFTS 14' LT.
312	7,757.099	35,042.195	PC CURVE D-9 TEMP. RDWY. D
313	7,640.430	35,103.038	P.I. CURVE D-9 TEMP. RDWY. D
314	7,543.471	35,191.990	P.T. CURVE D-9 TEMP. RDWY. D
315	7,432.366	35,079.084	POC TEMP. RDWY "D" NOSE 31' RT.
316	7,676.025	35,052.740	NOSE TEMP. RDWY "D" & TUDOR AVE.
		TEMPORARY ROADWAY "A"	
317	8,101.565	34,890.343	P.I. CURVE A-6 TEMP. RDWY. "A"
318	8,030.910	35,001.429	P.T. CURVE A-6 TEMP. RDWY "A"
319	7,905.572	35,098.489	POT. TEMP. RDWY "A" & SHIFTS 14' RT.
320	7,893.759	35,090.976	PC CURVE A-7 TEMP. RDWY "A"
321	7,923.115	35,322.043	P.I. CURVE A-7 TEMP. RDWY "A"
322	7,726.136	35,391.046	P.T. CURVE A-7 TEMP. RDWY "A"
323	7,854.355	35,248.407	POC TEMP. RDWY "A" NOSE 33' LT.
324	7,880.930	35,268.013	NOSE TEMP. RDWY "A" & PIGGOTT AVE.
		MISCELLANEOUS POINTS	
325	7,510.641	35,327.174	℄ F.A.I. 70 & P.T. A-6
326	7,566.683	35,314.968	℄ F.A.I. 64, P.O.T. TRAVERSE LINE
		ERSKINE - PIGGOTT CONNECTOR	
327	8,829.476	34,231.330	POT. ℄ E.P.C. CONN. POT TRAVERSE LINE
328	8,879.784	34,190.796	P.T. ERSKINE-PIGGOTT CONNECTOR
329	9,446.756	34,196.375	POT ℄ E.P.C. CONN. POT RDWY "A"

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
		MISCELLANEOUS POINTS	
500	9,997.956	33,609.579	POC RDWY "B" STA 82+00
501	9,966.235	33,680.852	POC RDWY "C" STA 83+00
502	10,816.335	33,828.469	POT RDWY "B" STA 90+50
503	10,786.511	33,893.944	POT RDWY "C" STA 91+50
504	11,248.061	33,913.397	POT RDWY "B" STA 94+90
505	11,218.237	33,978.871	POT RDWY "C" STA 95+90
506	11,699.411	34,002.184	P.T. RDWY "B" STA 99+50
507	11,718.647	34,077.310	POT RDWY "C" STA 101+00
508	12,140.949	34,089.042	POT RDWY "B" STA 104+00
509	12,160.185	34,164.167	POT RDWY "C" STA 105+50
510	12,911.113	34,294.588	POC RDWY "B" STA 112+00
511	12,927.454	34,377.118	POC RDWY "C" STA 113+50
512	13,282.307	34,650.548	POC RDWY "L" STA 118+00
513	13,550.020	34,843.441	POC RDWY "B" STA 120+50
514	13,503.079	34,978.343	POC RDWY "C" STA 122+00
515	13,800.129	35,263.625	POC RDWY "B" STA 125+40

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
		ROADWAY "E"	
400	6,436.555	32,077.745	P.C. CURVE E-1
401	6,436.963	32,065.752	P.C. CURVE E-2 (12' RT.)
402	6,267.475	32,071.997	P.T. CURVE E-1
403	6,160.532	32,056.354	P.T. CURVE E-2
404	6,098.821	32,085.294	P.T. CURVE E-1
405	5,884.799	32,078.094	P.T. CURVE E-2 (24' RT.)
406	5,763.001	32,111.771	POT END RDWY "E"
		ROADWAY "F"	
407	5,765.359	32,141.678	P.C. CURVE F-1 BEGIN RDWY "F"
408	5,873.528	32,159.836	P.C. CURVE F-2 (24' RT.)
409	5,917.916	32,129.650	P.T. CURVE F-1
410	6,104.930	32,152.946	P.T. CURVE F-2
411	6,070.668	32,138.859	P.T. CURVE F-1
412	6,136.015	32,166.878	P.T. CURVE F-2 (12' RT.)
		ROADWAY "EF"	
413	5,764.180	32,126.725	P.O.T. BEGIN RDWY "EF"
414	5,751.221	32,127.746	P.O.T. NOSE POINT
415	5,744.242	32,128.297	℄ PTS. OF RDWY "EF" AND RAMP "A"
416	5,676.837	32,133.611	P.O.T. NOSE 1' LT.
417	5,676.916	32,134.608	NOSE POINT
418	5,496.057	32,186.985	P.C. CURVE EF-3 (39' LT.)
419	5,466.207	32,150.218	P.C. CURVE EF-1
420	5,373.200	32,118.430	P.C. CURVE EF-2
1440	5,318.320	32,150.626	P.O.T. NOSE POINT 0.283' RT.
1441	5,256.985	32,144.744	P.O.T. NOSE 0.565' RT.
1442	5,257.059	32,144.184	NOSE POINT
421	5,369.741	32,196.944	P.T. CURVE EF-3
422	5,308.313	32,162.667	P.T. CURVE EF-1
423	5,246.530	32,167.382	P.T. CURVE EF-3
424	5,246.884	32,128.389	P.T. CURVE EF-2
425	5,154.299	32,125.714	P.T. CURVE EF-1
426	5,125.673	32,098.827	P.T. CURVE EF-2
427	5,040.192	32,098.336	POT LEFT CORNER OF 4' STUB 29' LT.
428	4,524.620	31,974.635	POT END RDWY EF

POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
	TRAVERSE POINT LOCATION (CONTINUED FROM SHEET No.)		
12-E	7,668.361	35,467.713	TRAVERSE POINT
14-E	7,462.290	35,242.093	TRAVERSE POINT

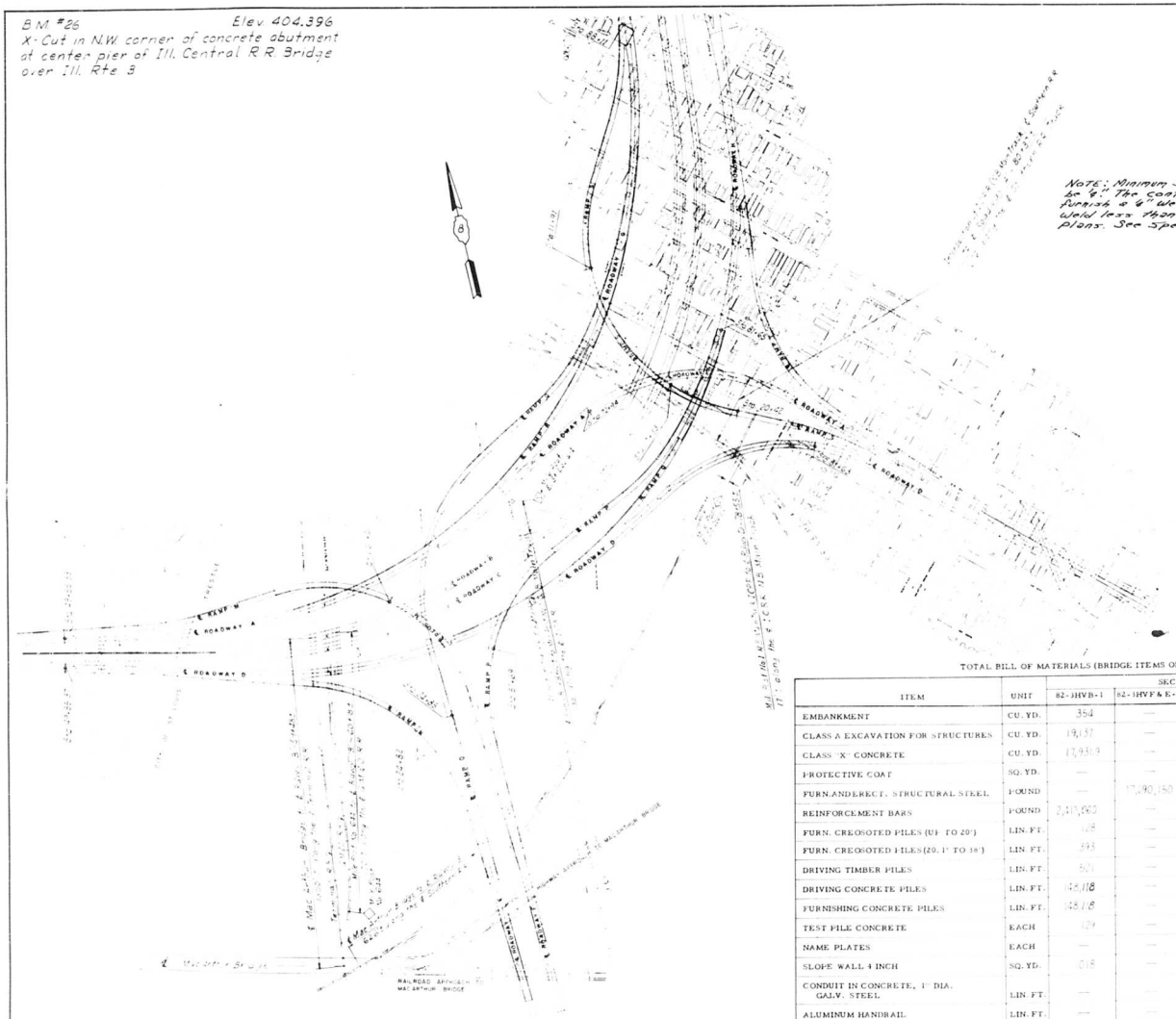
POINT CODE NO	COORDINATE NORTH	COORDINATE EAST	DESCRIPTION
		RAMP "X"	
440	4,519.954	31,994.083	P.O.T. BEGIN RAMP "X"
441	5,028.024	32,144.752	POT LEFT CORNER 4' STUB 19' RT.
442	5,033.426	32,126.536	LEFT CORNER 4' STUB
443	5,155.018	32,182.412	P.C. CURVE X-1
444	5,268.426	32,216.043	P.I. CURVE X-1
445	5,376.457	32,264.227	P.R.C. CURVE X-1 & X-2
446	5,503.273	32,320.788	P.I. CURVE X-2
447	5,641.095	32,303.956	P.R.C. CURVE X-2 & X-3
448	5,639.144	32,287.975	P.R.C. CURVE X-4 (6' LT.
449	5,730.818	32,292.833	P.I. CURVE X-3
450	5,743.076	32,275.206	P.I. CURVE X-4
451	5,818.720	32,313.923	P.T. CURVE X-3
452	5,844.900	32,299.637	P.T. CURVE X-4 (20' LT.
		RAMP "A"	
460	5,991.868	32,307.130	P.C. CURVE A-1 BEGIN RAMP "A"
461	5,970.358	32,329.480	P.C. CURVE A-2 (8.36' LT.
462	5,841.034	32,289.450	P.I. CURVE A-2
463	5,842.560	32,271.306	P.I. CURVE A-1
1443	5,850.145	32,241.824	POC BEGIN 100-30-100 RAMP A-2 CURVE
464	5,756.877	32,186.471	P.T. CURVE A-2 24' LT.
465	5,755.573	32,144.777	P.T. CURVE A-1

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

LIST OF COORDINATE POINTS AND DESCRIPTIONS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILL.

B.M. #26 Elev. 404.396
X-Cut in N.W. corner of concrete abutment at center pier of Ill. Central R.R. Bridge over Ill. Rte. 3



KEY PLAN

NOTE: Minimum size of welds shall be 5/16". The contractor shall furnish a 5/16" weld in lieu of any weld less than 5/16" shown on the plans. See Special Provisions.

TOTAL BILL OF MATERIALS (BRIDGE ITEMS ONLY)

ITEM	UNIT	SECTION 82-3HVB-1	82-3HVF & E-1	82-3HVD-1	TOTAL
EMBANKMENT	CU. YD.	354	—	—	354
CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	19,137	—	—	19,137
CLASS "X" CONCRETE	CU. YD.	17,933.9	—	15,159.3	33,093.2
PROTECTIVE COAT	SQ. YD.	—	—	59,203	59,203
FURN. AND ERECT. STRUCTURAL STEEL	POUND	—	170,900 (60)	—	170,900
REINFORCEMENT BARS	POUND	2,419,093	—	3,956,836	6,375,929
FURN. CREOSOTED PILES (01' TO 20')	LIN. FT.	128	—	—	128
FURN. CREOSOTED PILES (20.1' TO 18')	LIN. FT.	393	—	—	393
DRIVING TIMBER PILES	LIN. FT.	521	—	—	521
DRIVING CONCRETE PILES	LIN. FT.	45,118	—	—	45,118
FURNISHING CONCRETE PILES	LIN. FT.	45,118	—	—	45,118
TEST PILE CONCRETE	EACH	129	—	—	129
NAME PLATES	EACH	—	—	4	4
SLOPE WALL 4 INCH	SQ. YD.	618	—	—	618
CONDUIT IN CONCRETE, 1" DIA. GALV. STEEL	LIN. FT.	—	—	324	324
ALUMINUM HANDRAIL	LIN. FT.	—	—	24,188	24,188
BRIDGE SEAT SEALANT *	L SUM	—	1	—	1
PAINTING STRUCTURAL STEEL	POUND	—	—	(170,900 (60))	(170,900)

CLASS A EXCAVATION FOR STRUCTURES INCLUDES EXCAVATION FOR SLOPE WALL.
* BRIDGE SEAT SEALANT TO BE USED AT ABUTMENTS AND PIERS AT EXPANSION JOINTS.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I – 70	82-3HVF&E-1	ST. CLAIR	19	1
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

GENERAL NOTES

COARSE AGGREGATE TO BE USED IN PARAPET HANDRAILS AND END POST MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, #4 WIRES WEIGHING 58 LBS. PER 100 SQ. FT.

ALL REINFORCEMENT BARS SHALL BE LAPPED 20 DIAMETERS UNLESS OTHERWISE SHOWN.

ALL WELDING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY, AWS D2. 0-63.

ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. DESIGNATION A-36.

ALL FIELD CONNECTIONS BOLTED, HIGH STRENGTH STEEL BOLTS 7/8" OPEN HOLES 15/16" EXCEPT AS NOTED.

HIGH STRENGTH STEEL BOLT CONNECTIONS SHALL BE IN ACCORDANCE WITH ART. 54.5(g) OF THE STANDARD SPECS.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

ROADWAY EXPANSION GUARDS SHALL BE ASSEMBLED IN THE SHOP IN PROPER POSITION WITH THE ENDS IN PLACE AND SHALL BE LEFT ASSEMBLED FOR SHOP INSPECTION.

FINGER PLATES SHALL BE FLAME CUT AS PROVIDED IN ARTICLE 54.5 (1) OF THE STANDARD SPECIFICATIONS.

ALL SURFACE OF THE EXPANSION GUARD INACCESSIBLE AFTER ERECTION SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT, THE CONTACT SURFACES SHALL BE GIVEN ONE COAT OF RED LEAD PAINT. ANCHOR STUDS SHALL NOT BE PAINTED.

EXPANSION GUARDS ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT (85,040) LBS.

EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL SHALL RECEIVE ONE (1) SHOP COAT OF RED LEAD PAINT. SEE ARTICLE 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AND EACH PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

CONCRETE PILES AT ABUTMENTS SHALL BE DRIVEN IN HOLES PRE CORED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 50.9 (c) OF THE STANDARD SPECIFICATIONS.

CURVED GIRDERS, INTERMEDIATE FLOOR BEAMS AND END FLOOR BEAMS SHALL BE COMPLETELY ASSEMBLED IN THE SHOP IN PROPER POSITION BEFORE REAMING FIELD CONNECTIONS AND SHALL BE LEFT ASSEMBLED FOR SHOP INSPECTION.

PERMANENT FOR MS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

DESIGN STRESSES

f_c = 1400 psi. Super and Sub.
f_s = 20,000 psi Reinforcement
f_s = 20,000 psi Struct (A-36 Steel)
v_c = 75 psi. Footings
n = 10

LOADING HS20-44 & Alt

Note
All cross reference sheet numbers shown on the Bridge Plans are the numbers located in the lower right hand corner of each sheet.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

KEY PLAN, GENERAL NOTES AND BILL OF MATERIAL

POPLAR STREET BRIDGE APPROACHES

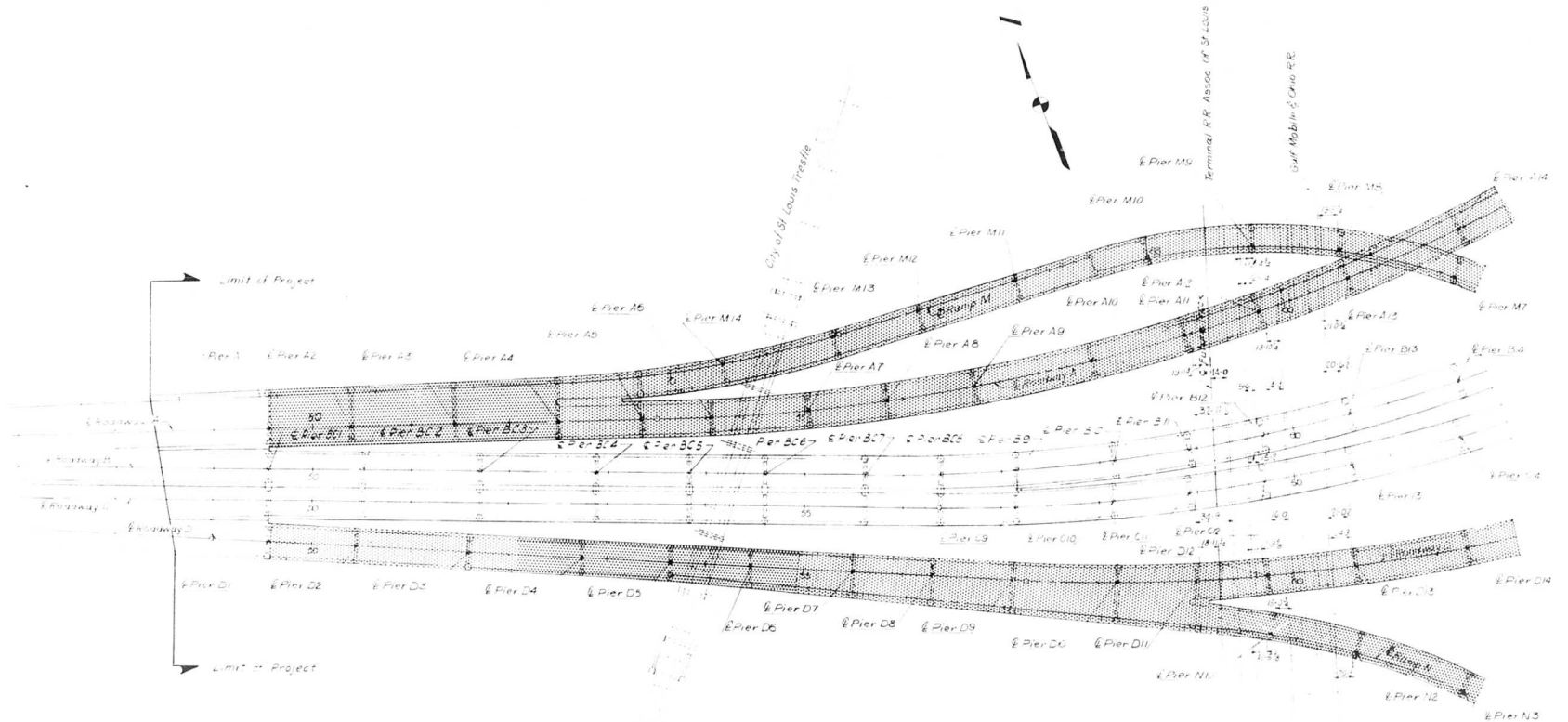
82-3HVB-1
82-3HVF & E-1
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVD-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 1 OF 526

DESIGNED BY K.W.S.
DRAWN BY J.A.S.
CHECKED BY K.W.S.
APPROVED BY K.H.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I – 70	82-3HVF&F-1	ST. CLAIR	247	20
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



- Indicates Portion included in Sections 82-3HVB-1, 82-3HVF & E-1 and 82-3HVD-1.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GENERAL PLAN

POPLAR STREET BRIDGE APPROACHES

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

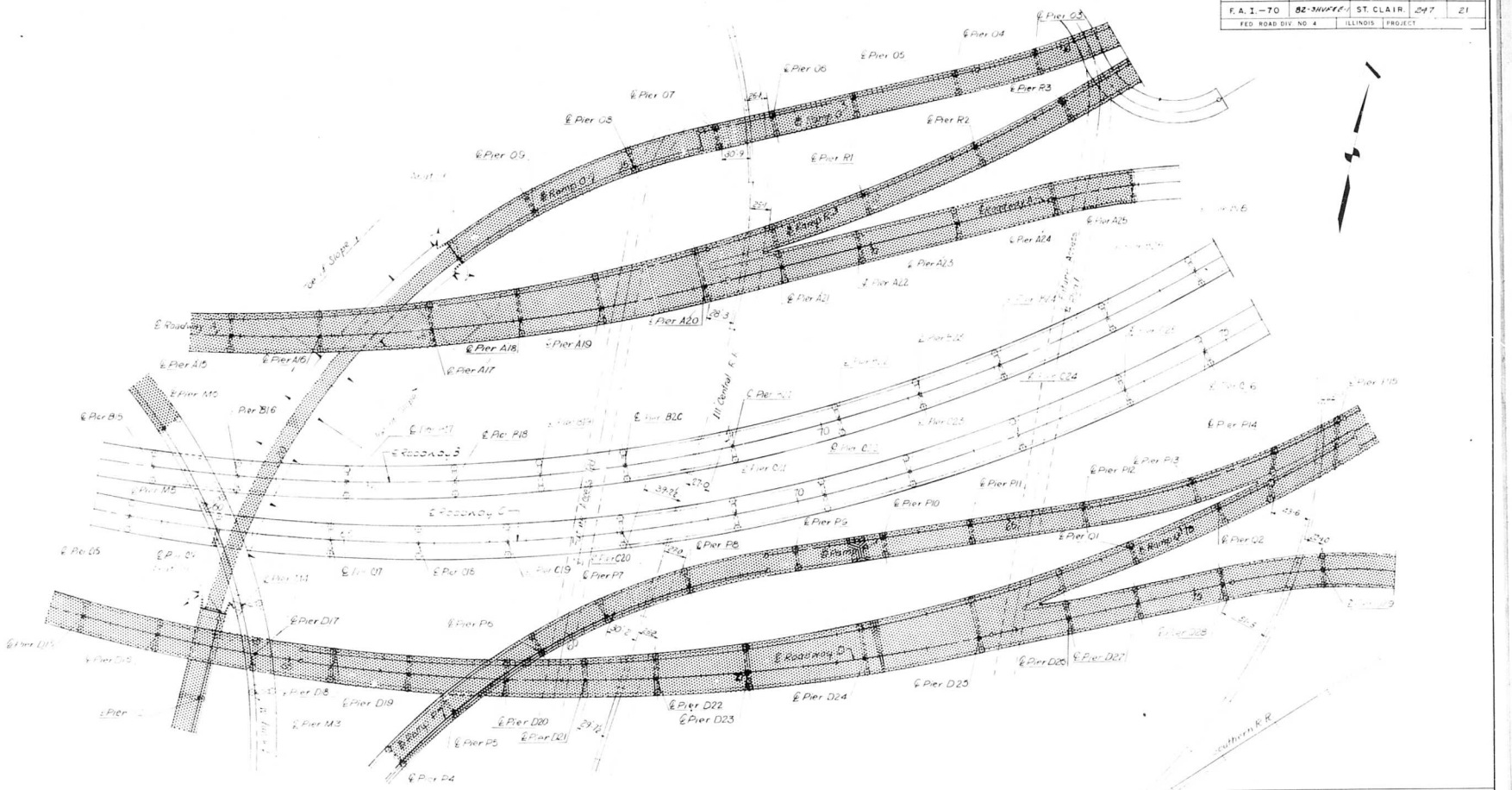
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

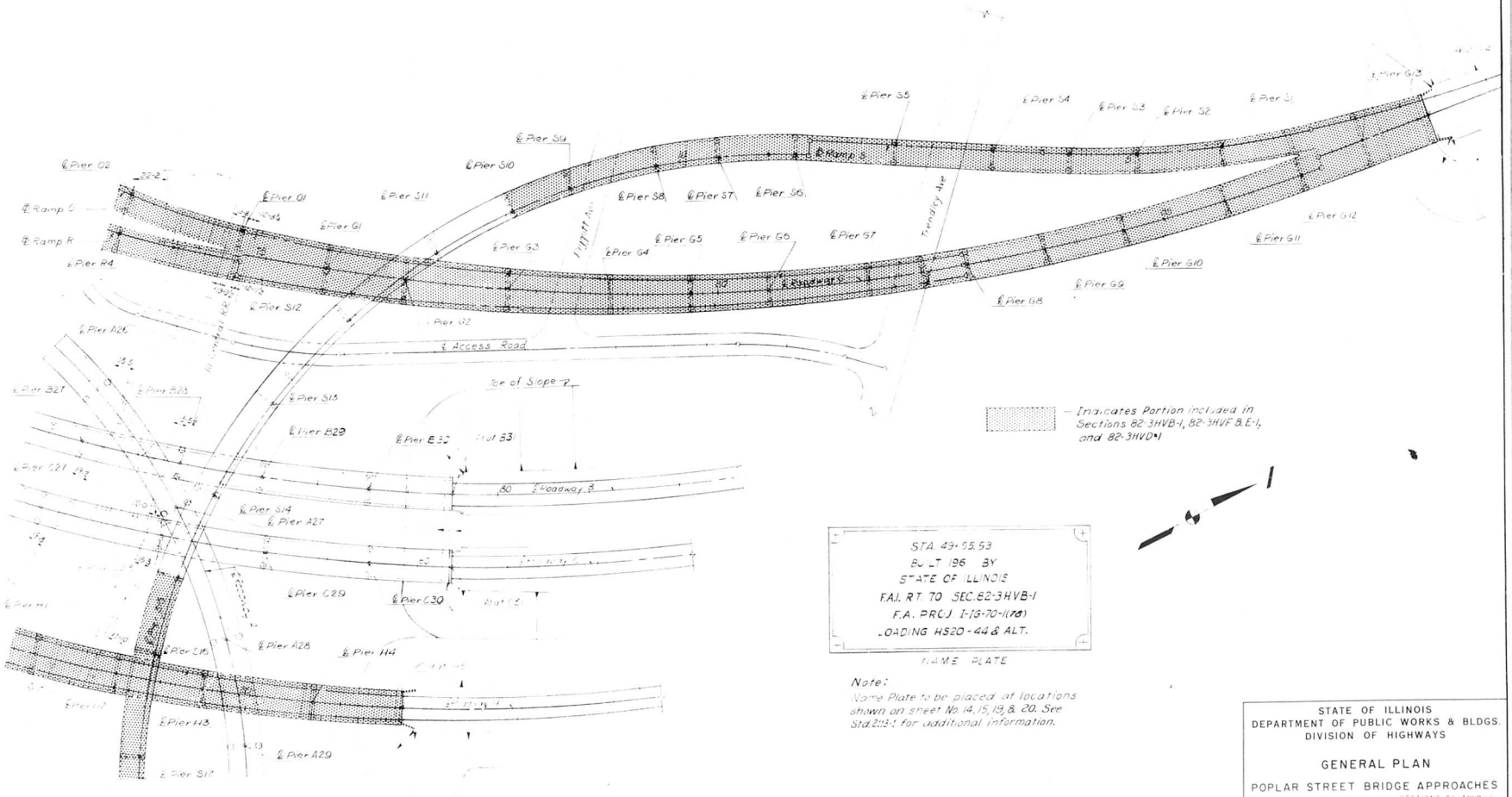
SHEET 2 OF 5 S

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY RA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HV(F&E)	ST. CLAIR	247	21
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.—70	82-3HVF&E-1	ST. CLAIR	247	22
FED. ROAD DIV. NO. 5	ILLINOIS	PROJECT		



— Indicates Portion included in Sections 82-3HVB-1, 82-3HVF & E-1, and 82-3HVD-1

STA. 43+55.53
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 70 SEC. 82-3HVB-1
F.A. PROJ. I-13-70-1(78)
LOADING HS20-44 & ALT.

NAME PLATE

Note:
Name Plate to be placed at locations shown on sheet No. 14, 15, 19, & 20. See Std. 2113-1 for additional information.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GENERAL PLAN

POPLAR STREET BRIDGE APPROACHES

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

F. A. I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 4 OF 576

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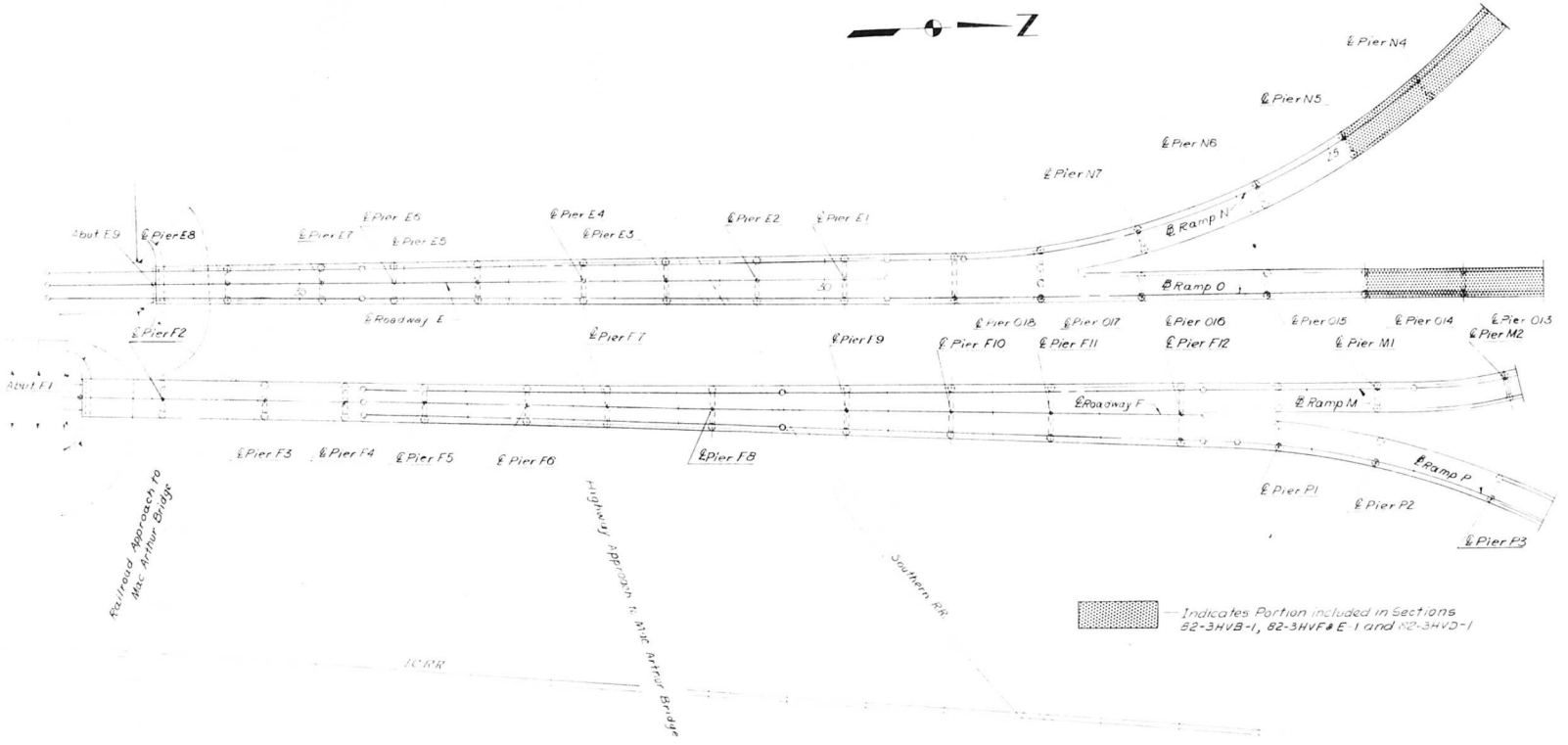
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I — 70	82-3HVF&E-1	ST. CLAIR	247	23
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GENERAL PLAN

POPLAR STREET BRIDGE APPROACHES

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

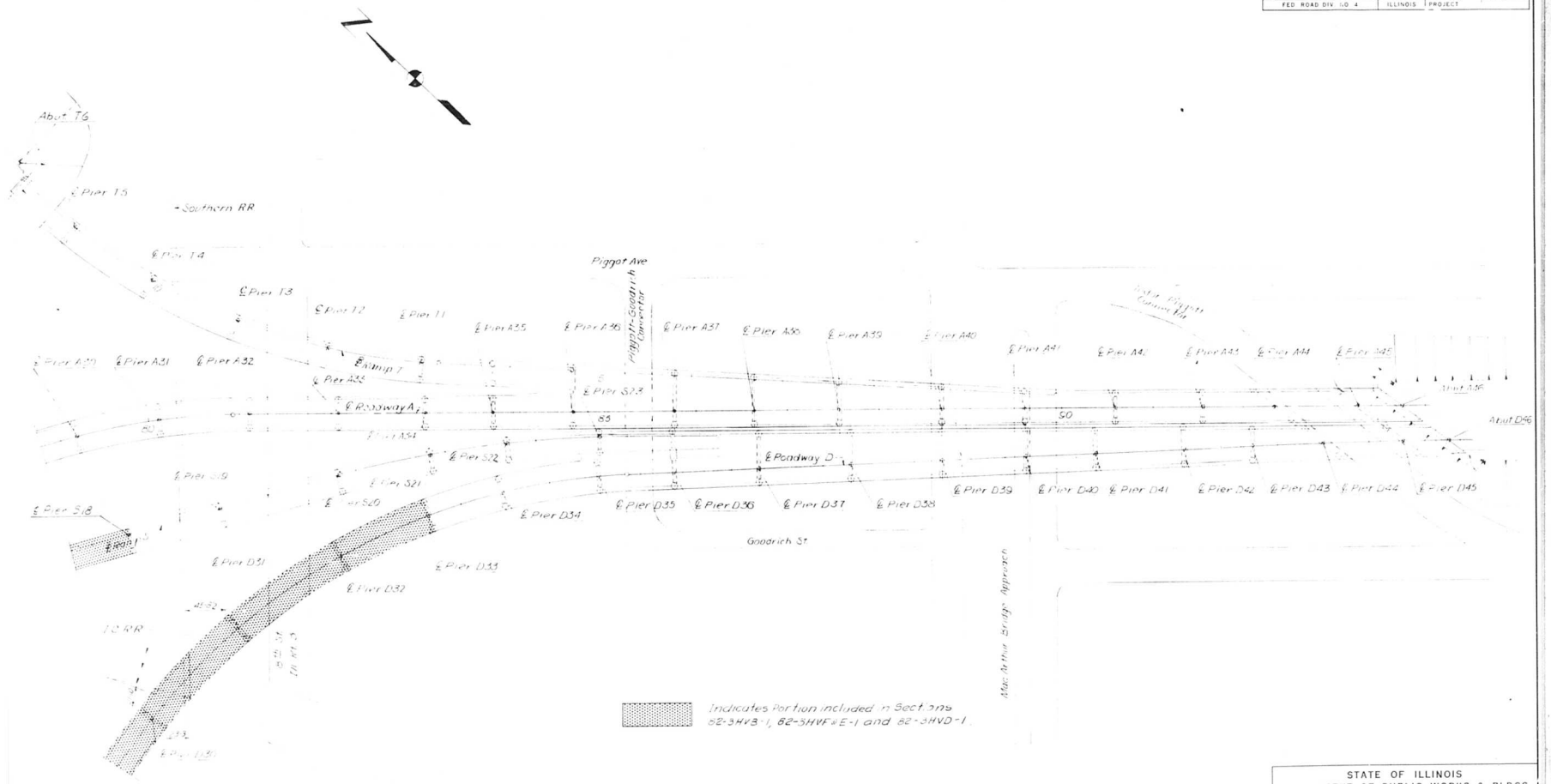
F A I RT 70 ST CLAIR CO

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 5 OF 52

DRAWN BY RMR
TRACED BY
CHECKED BY RMR
APPROVED BY KA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	24
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GENERAL PLAN

POPLAR STREET BRIDGE APPROACHES

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 6 OF 526

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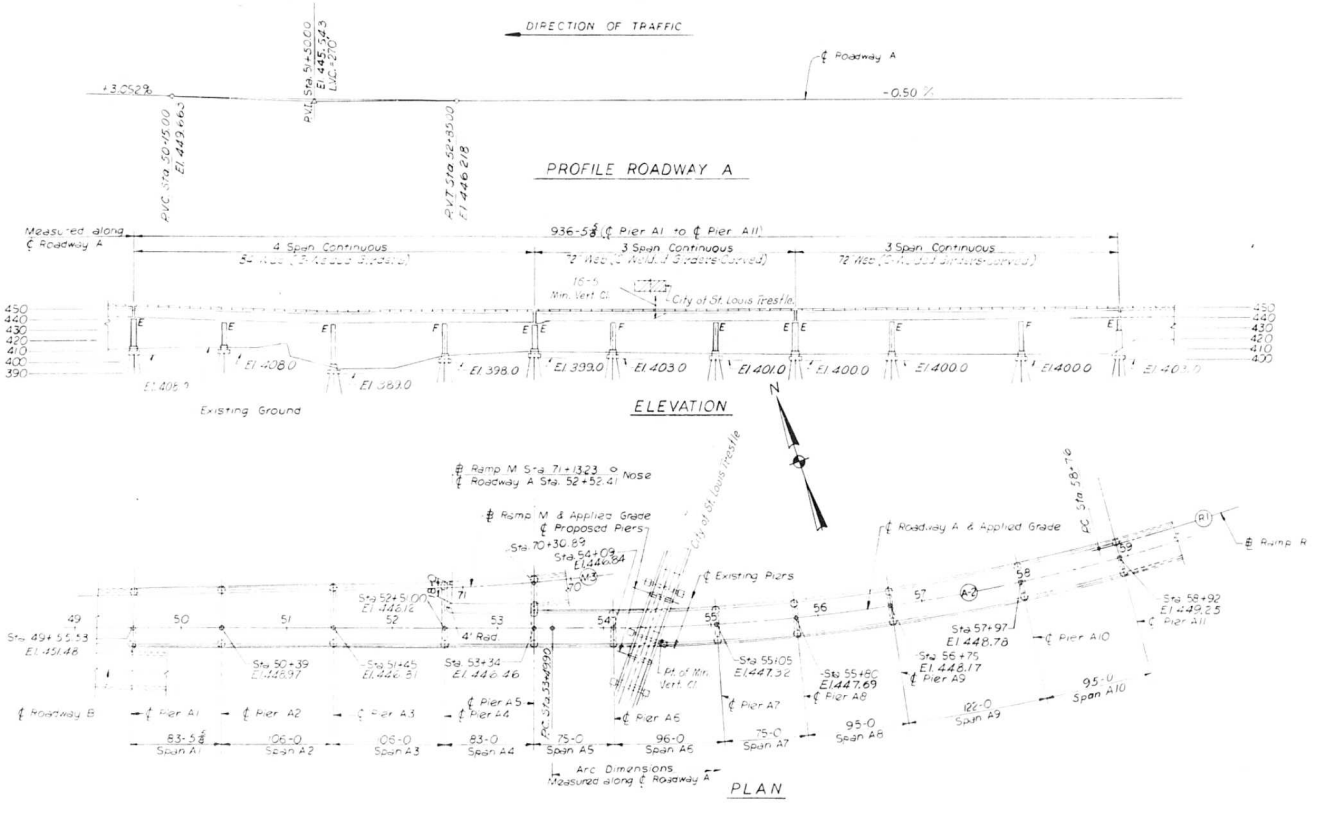
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E	ST. CLAIR	247	25
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS A1 THRU A10

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

SECTIONS 82-3HVB-1, 82-3HVF&E-1, 82-3HVD-1

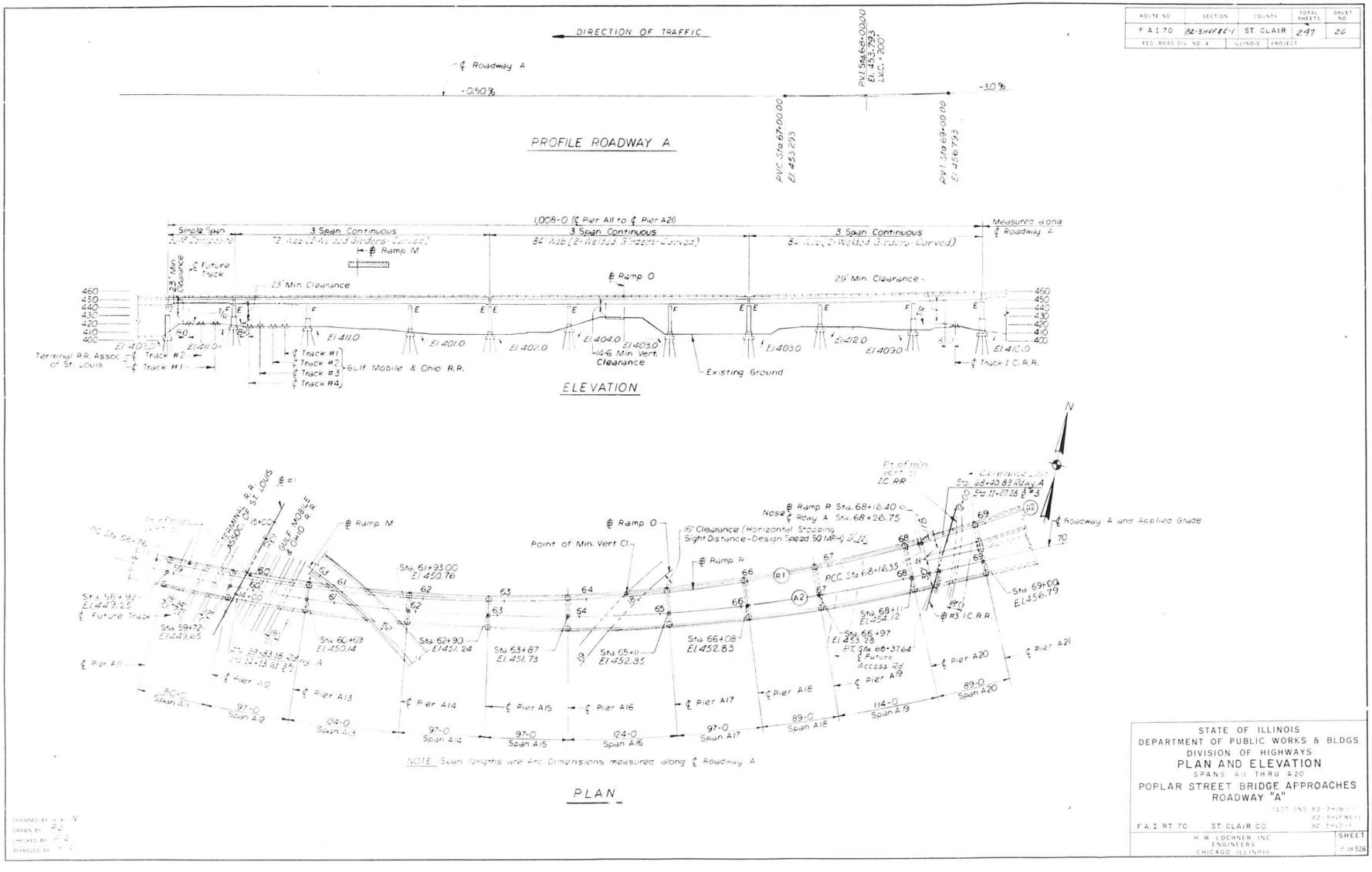
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 7 OF 25

DESIGNED BY J. L. N.
DRAWN BY [illegible]
CHECKED BY A. S.
APPROVED BY K. A.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	26
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION
SPANS A11 THRU A20
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
8 OF 526

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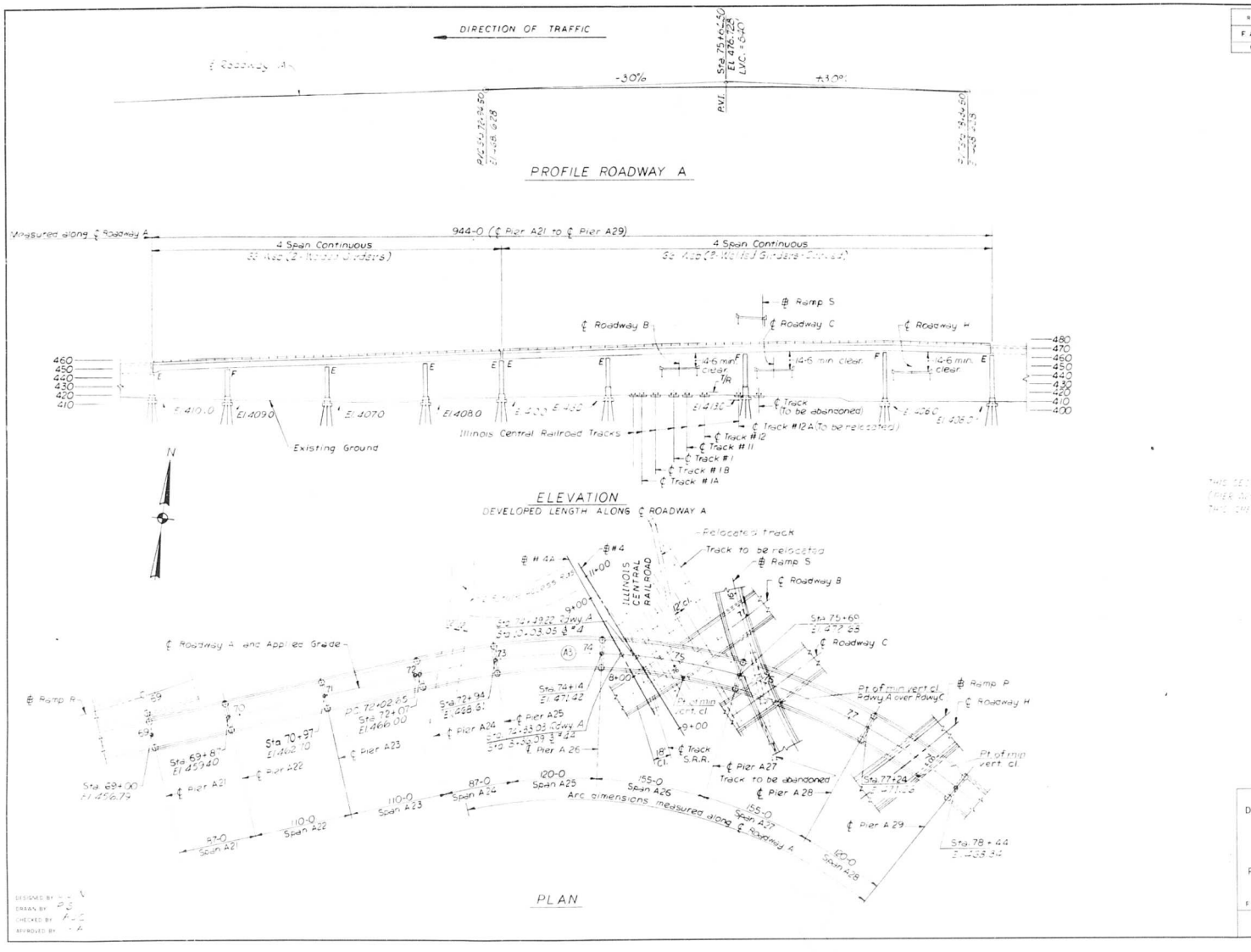
APPROVED BY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	27
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS A21 THRU A28

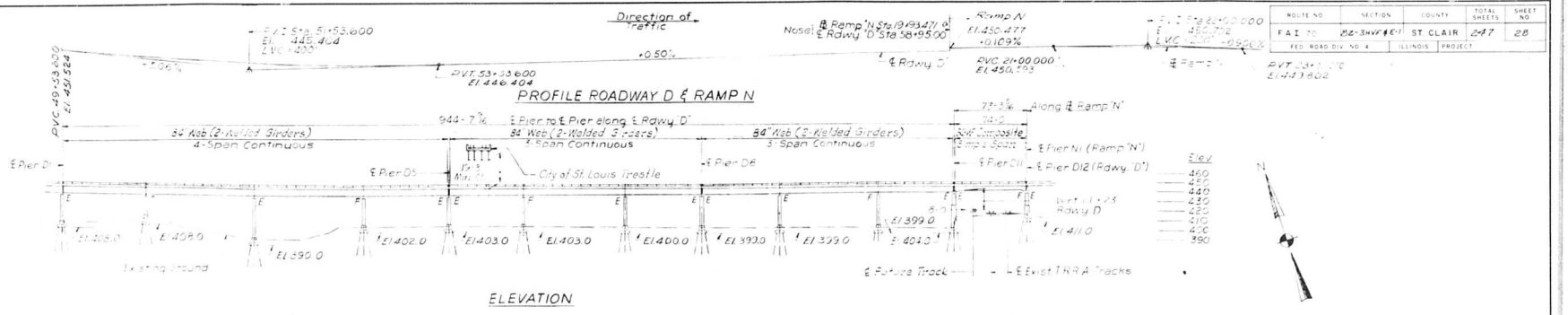
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. 82-3HVB-1, 82-3HVFBE-1, 82-3HVD-1

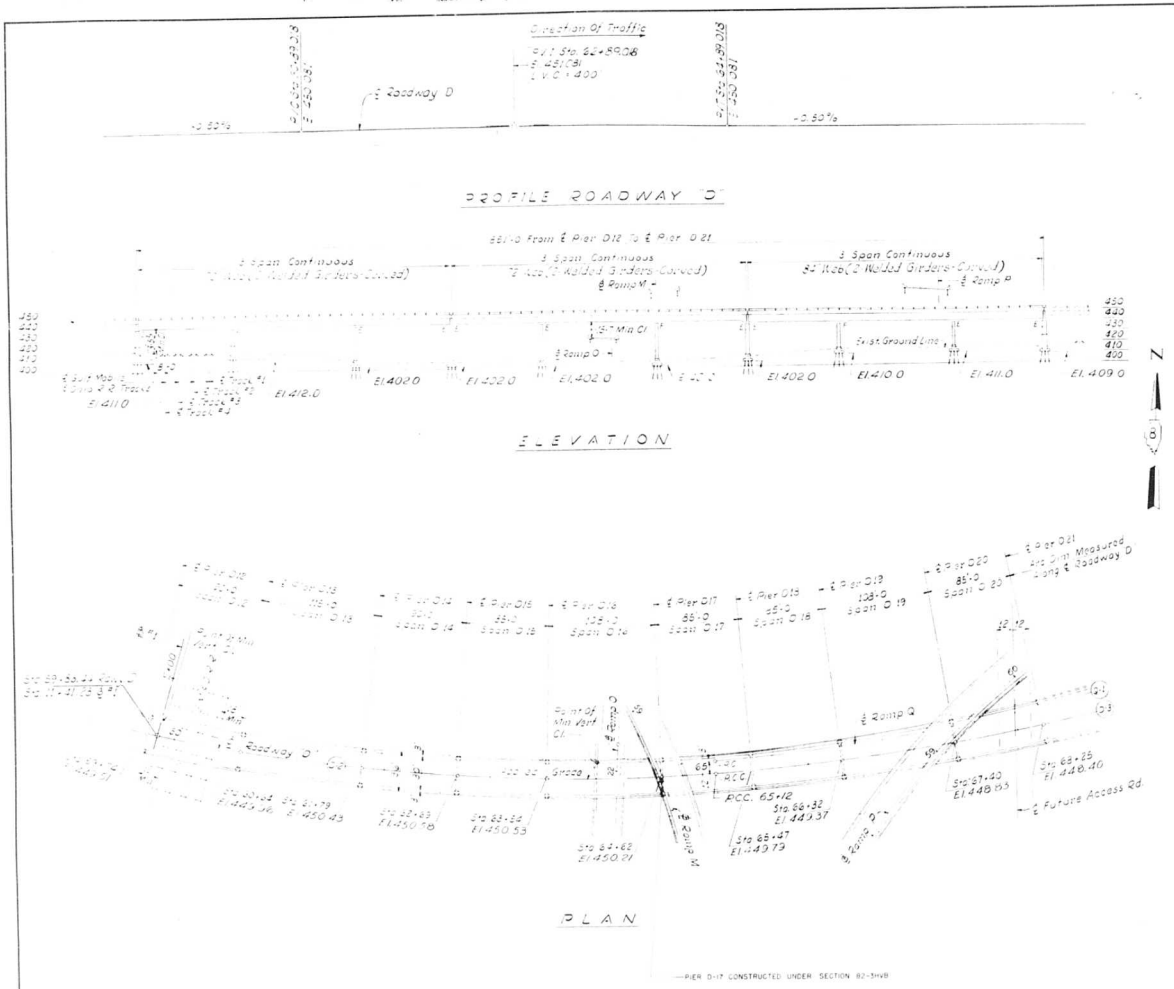
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 2 OF 52

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF(E-1)	ST. CLAIR	247	28
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		


Direction of Traffic
E.V.I. Sta. 51+53.600
El. 445.404
LVC = 400
-1.00%
PVC 49+53.600
El. 451.524
PVT 53+33.600
El. 446.404
+0.50%
Nose of ℄ Ramp "N" Sta 59+93.471.9
℄ Rdwy. "D" Sta 58+95.00
℄ Ramp N
El. 450.477
-0.109%
℄ Rdwy. "D"
PVC 21+00.000
El. 450.793
E.V.I. Sta 22+00.000
El. 450.772
LVC = 200
+0.950%
℄ Ramp "N"
PVT 23+00.000
El. 447.802
PROFILE ROADWAY D & RAMP N
944'-7⅞"
℄ Pier to ℄ Pier along ℄ Rdwy. D
84" Web (2-Welded Girders)
3-Span Continuous
84" Web (2-Welded Girders)
3-Span Continuous
84" Web (2-Welded Girders)
4-Span Continuous
73'-3⅛" Along ℄ Ramp "N"
74'-0"
Stiff Composite
Comp. Seam
℄ Pier N1 (Ramp "N")
℄ Pier D12 (Rdwy. "D")
℄ Pier D1
℄ Pier D5
17'-3" Min. Cl.
City of St. Louis Trestle
℄ Pier D8
℄ Pier D11
Elev
460
450
440
430
420
410
400
390
Vert. Cl. 23'-0" Rdwy. D
El. 399.0
El. 401.0
El. 411.0
El. 408.0
El. 390.0
El. 402.0
El. 403.0
El. 403.0
El. 400.0
El. 393.0
El. 399.0
Existing ground
℄ Future Track
℄ Exist. T.R.R.A. Tracks
ELEVATION
℄ Future T.R.R.A. Track
Dimensions measured along ℄ Roadway "D"
30'-7⅞" SPAN D1
5'-0" SPAN D2
15'-0" SPAN D3
50'-0" SPAN D4
81'-0" SPAN D5
105'-0" SPAN D6
81'-0" SPAN D7
81'-0" SPAN D8
105'-0" SPAN D9
81'-0" SPAN D10
74'-0" SPAN D11
℄ Pier D1
℄ Pier D2
Applied Grade ℄ Roadway "D"
℄ Pier D3
℄ Pier D4
Sta. 53+11.
El. 446.28
℄ Pier D5
Pt. of Min. Vert. Cl.
℄ Pier D6
℄ Pier D7
℄ Pier D8
℄ Pier D9
℄ Pier D10
℄ Pier D11
℄ Pier D12
12'-0"
5'-0"
5'-0"
5

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I -70	82-3HVF&E-1	ST CLAIR	247	29
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



—PIER D-17 CONSTRUCTED UNDER SECTION 82-3HVB

THIS SECTION INCLUDES ALL ~~[illegible]~~ PIERS EXCEPT PIER D17. DATA FOR PIER D17 SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION
SPANS D12 THRU D20

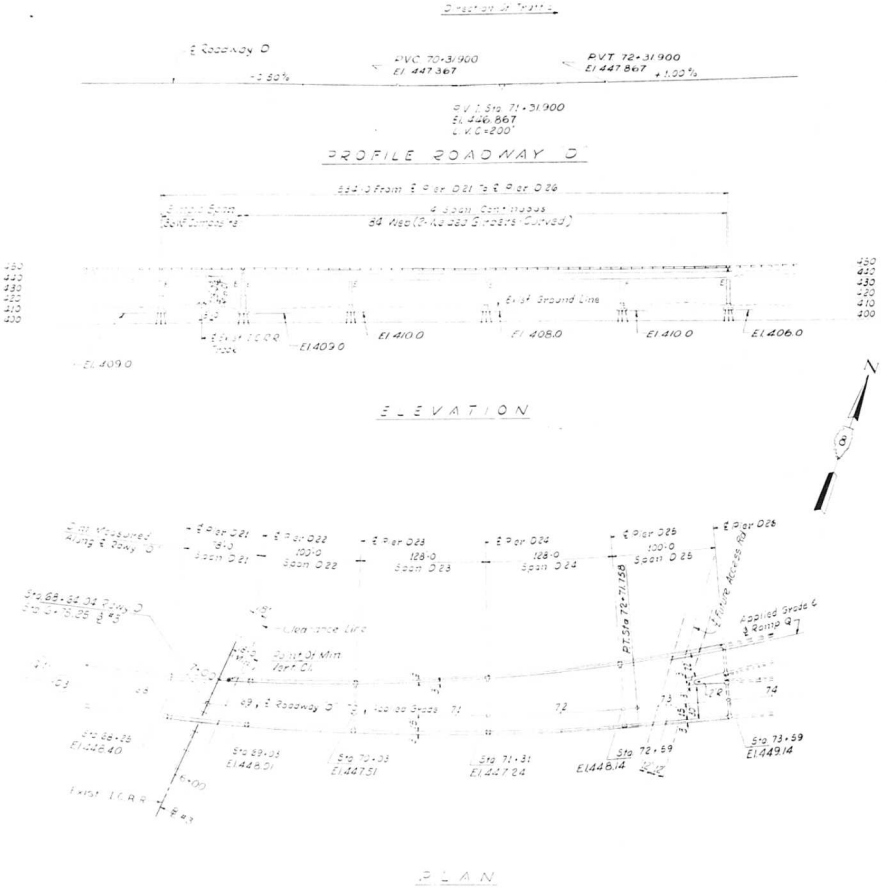
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F A I RT 70 ST CLAIR CO. SECTIONS 82-3HVB-1, 82-3HVF&E-1, 82-3HVD-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 11 OF 215

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	30
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS D21 THRU D25

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

SECT. D1S 82-3HVB-1
82-3HVFBE-1
82-3HVS-

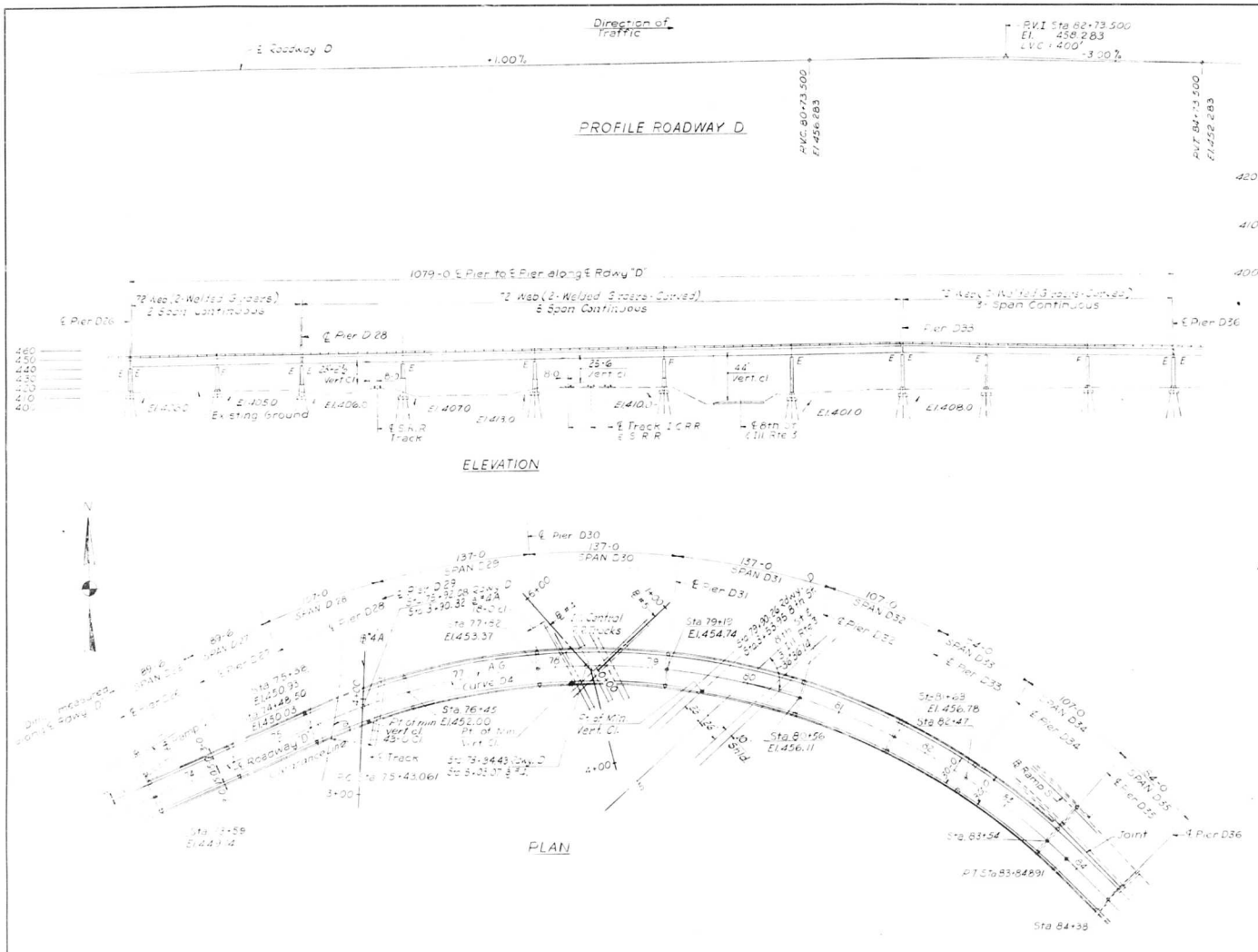
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 12 OF 52 SHEETS

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3H,6B-1	ST. CLAIR	247	31
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		





8th STREET Existing PROFILE

THIS SECTION INCLUDES SPANS D26 THRU D35. DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS D 26 THRU D 35
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

SECTIONS 82-3H,6B-1
82-3H,FAE-1
82-3H,S-1

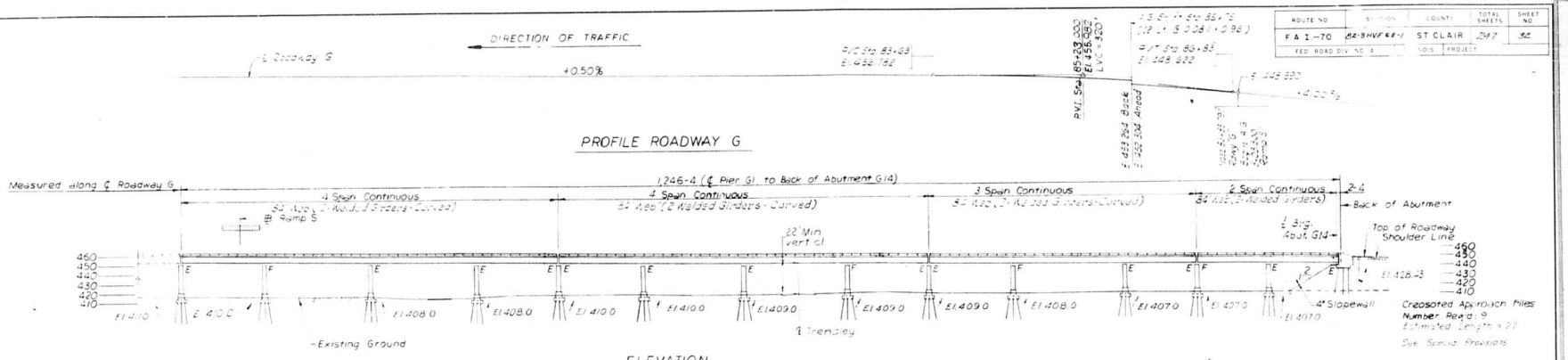
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 1 OF 56

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I —70	82-3HVFR-1	ST CLAIR	1247	32
FED. ROAD DIV. NO. 4		ILLS. PROJECT		


DIRECTION OF TRAFFIC
℄ Roadway G
+0.50%
P.V.I. Sta. 85+33
El. 456.330
L = 430'
P.V.T. Sta. 89+63
El. 458.782
2.8 S= √2Ac/88+70
(12 L = S² 0.08 (A + 2.96))
B/T Sta 86+85
El 448.882
E 448.880
+4.00%
E 453.264 Back
E 452.364 Ahead
Pt. of Vert. Curve
Sta 87+33
El 453.30
Roadway G
PROFILE ROADWAY G
Measured along ℄ Roadway G
1,246-4 (℄ Pier G1 to Back of Abutment G14)
4 Span Continuous
84 Abs (2 Welded Girders - Curved)
4 Span Continuous
84 Abs (2 Welded Girders - Curved)
3 Span Continuous
84 Abs (3 Welded Girders - Curved)
2 Span Continuous
84 Abs (2 Welded Girders)
2-4
Back of Abutment
℄ Brg. Abut. G14
Top of Roadway Shoulder Line
22' Min vert cl
℄ Ramp S
460
450
440
430
420
410
El 410
E 410.0
El 408.0
El 408.0
El 410.0
El 410.0
El 409.0
El 409.0
El 409.0
El 408.0
El 407.0
El 407.0
El 407.0
El 426.43
4" Slopewall
Creosoted Approach Piles
Number Req'd. 9
Estimated Length = 27'
See Special Provisions
Existing Ground
℄ Trendley
ELEVATION
DEVELOPED LENGTH ALONG ℄ ROADWAY G
NOTE: Span lengths G1 thru G11 are arc dimensions measured along ℄ Roadway G
88-0 Span G1
113-0 Span G2
113-0 Span G3
88-0 Span G4
87-0 Span G5
110-0 Span G6
110-0 Span G7
87-0 Span G8
90-0 Span G9
115-0 Span G10
90-0 Span G11
76-0 Span G12
76-0 Span G13
℄ Brg. Abutment G14
Transition from 3.1 to 3.7
℄ Pier G1
℄ Pier G2
℄ Pier G3
℄ Pier G4
℄ Pier G5
℄ Pier G6
℄ Pier G7
℄ Pier G8
℄ Pier G9
℄ Pier G10
℄ Pier G11
℄ Pier G12
℄ Pier G13
℄ Ramp O
℄ Ramp R
℄ Ramp S
℄ Ramp S
Sta 75+67
El 460.76
Sta 76+55
El 460.32
Sta 77+68
El 459.76
Sta 78+81
El 459.19
Sta 79+69
El 458.75
Sta 80+56
El 458.32
Sta 81+55
El 457.77
Sta 82+13.14 Rdwy G
Sta 12+18.92 Trendley Ave
Pt. of min vert cl
Sta 83+53
El 456.78
Sta 84+58
El 455.69
Sta 85+69
El 453.43
Sta 86+59
El 449.55
Sta 87+33
El 448.88
Sta 87+33 88 Rdwy G
Sta 13+36.71 Piggott Ave.
Sta 13+69.43
Piggott Ave.
Trendley Ave.
Roadway G
Ramp O
Ramp R
Ramp S
Ramp S
Ramp S
Ramp O
Ramp R
Ramp S
Roadway G and Applied Grade
Pt. of Vert. Curve
Sta 84+58
El 455.69
Sta 85+69
El 453.43
Sta 86+59
El 449.55
Sta 87+33
El 448.88
Sta 87+33
El 448.80
Sta 87+73
El 448.22
Sta 88+33.73 ℄ Rdwy G
Sta 3+20.11 ℄ Ramp S
Nose
Sta 82+72.42
Roadway G
Trendley
Sta 83+19.05
Sta 83+53
El 456.78
Transition from 3.1 to 3.7
Transition from 3.7 to 3.1
Sta 87+33
El 448.80
Sta 87+73
El 448.22
Sta 87+33
El 448.80
Sta 87+73
El 448.22
Sta 87+33
El 448.80
Sta 87+73
El 448.22

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3H, 82-4H	ST. CLAIR	247	83
FED. ROAD DIV. NO. 5	ILLINOIS	PROJECT		



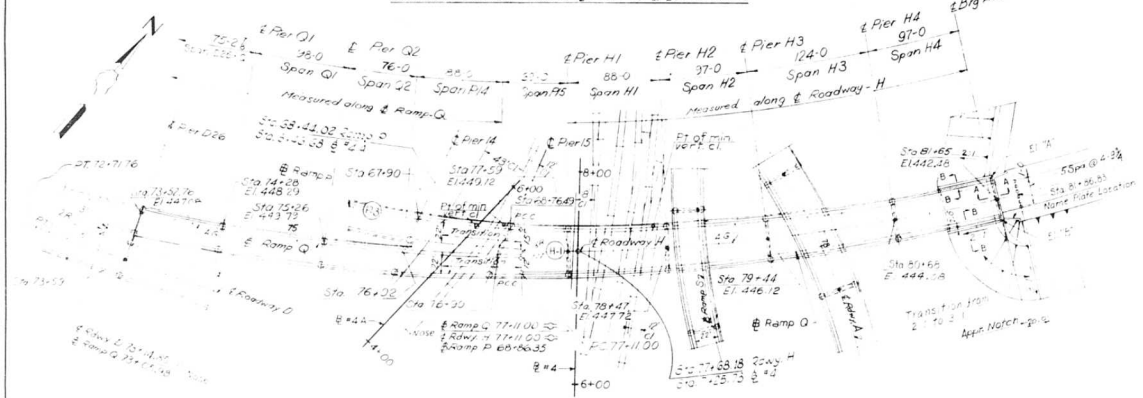
PROFILE RAMP-Q AND ROADWAY-H



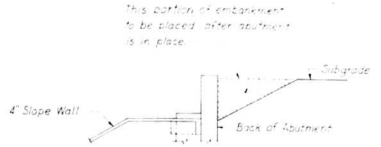
ELEVATION

DEVELOPED LENGTH ALONG ℄ RAMP-Q & ℄ ROADWAY-H

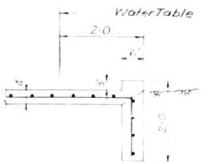
Precasted Approach Piles
Number Required - 6
Estimated Length - 25'
See Special Provisions



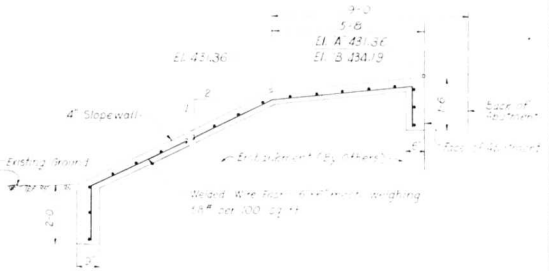
PLAN



SECTION A-A



SECTION B-B



TYPICAL CROSS SECTION OF SLOPE WALL

BILL OF MATERIAL		
Item	Unit	Quantity
Slope Wall 4"	S.Y.	282
Name Plate	Ea.	1
Embankment	C.Y.	100

DESIGNED BY C.A.N.
DRAWN BY C.A.B.
CHECKED BY V.V.R.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS D26-Q, Q1, Q2, P14, P15, H1 THRU H4

POPLAR STREET BRIDGE APPROACHES
ROADWAY "H" AND RAMP "Q"

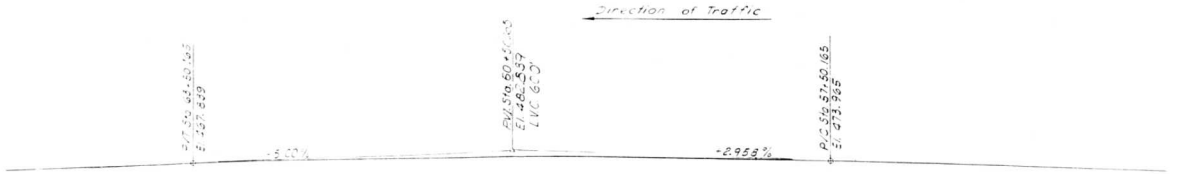
SECTIONS 82-3H, 82-4H

F.A.I. RT 70 ST. CLAIR CO.

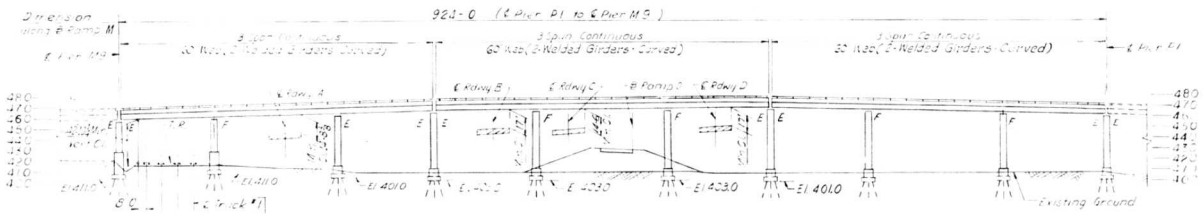
H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 5 OF 525

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	34
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

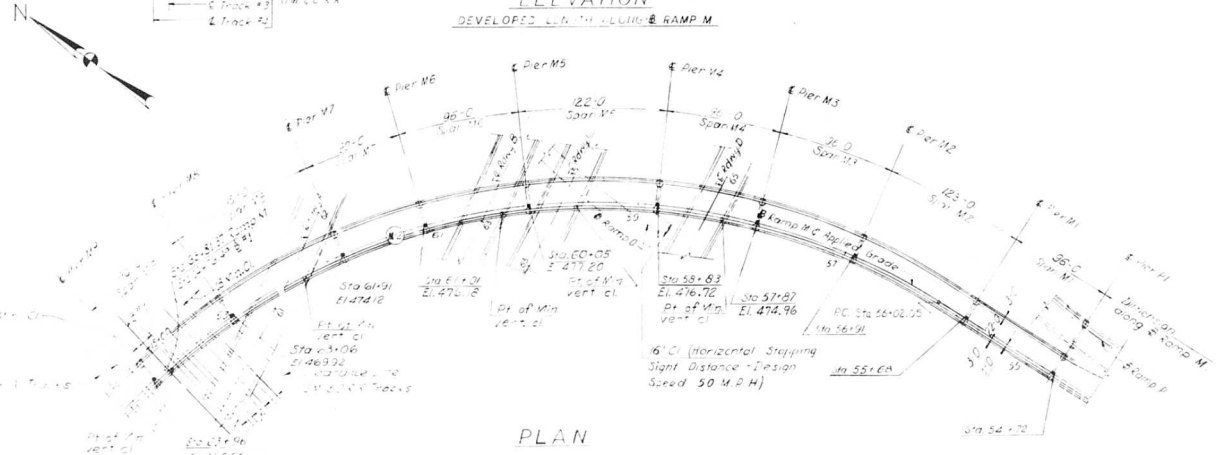


PROFILE RAMP M



ELEVATION

DEVELOPED LENGTH ALONG ℄ RAMP M



PLAN

THIS SECTION INCLUDES SPANS M7 THRU M9 ONLY. (PIER M9 NOT INCLUDED) OTHER DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS M1 THRU M9

POPLAR STREET BRIDGE APPROACHES
RAMP "M"

SECTIONS 82-3HVB-1, 82-3HVF&E-1, 82-3HVD-1

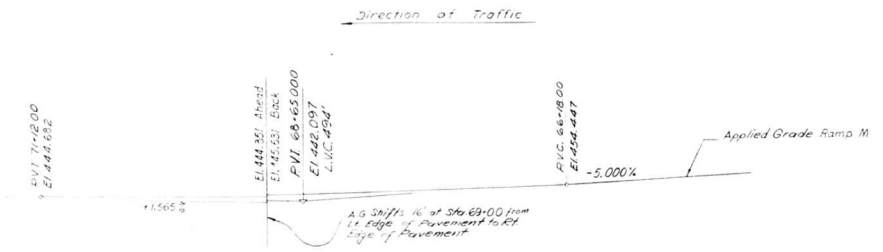
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

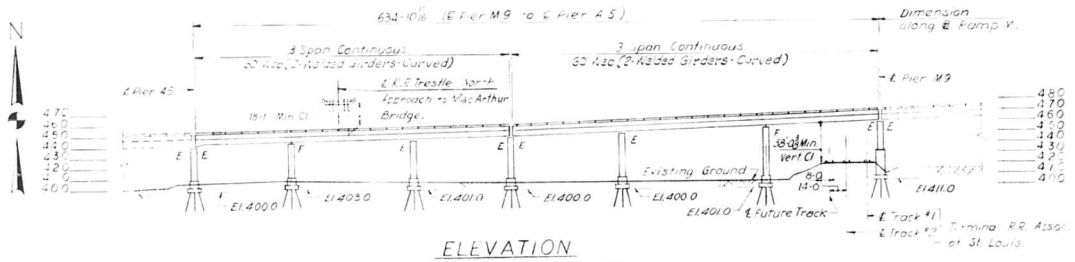
SHEET 16 OF 506

DESIGNED BY
CLEAN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVB-1	ST. CLAIR	247	35
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

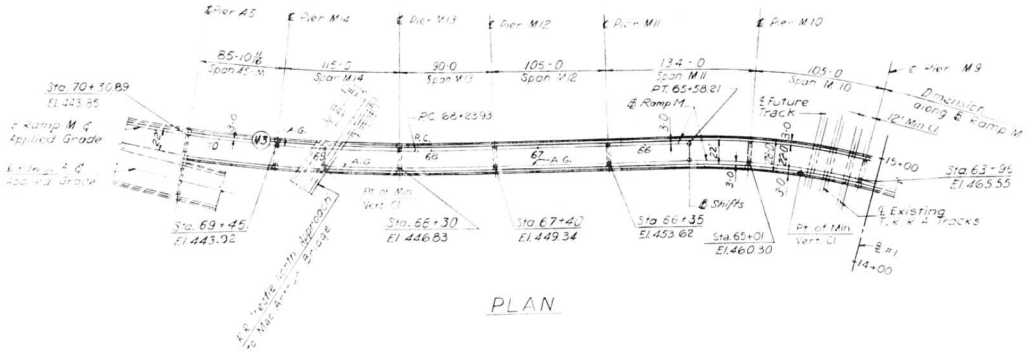


PROFILE RAMP M



ELEVATION

DEVELOPED LENGTH ALONG ℄ RAMP M



PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS M10 THRU M14 AND A5-M

POPLAR STREET BRIDGE APPROACHES

RAMP "M"

SECTIONS 82-3HVB-1
82-3HVRE-1
82-3HVD-1

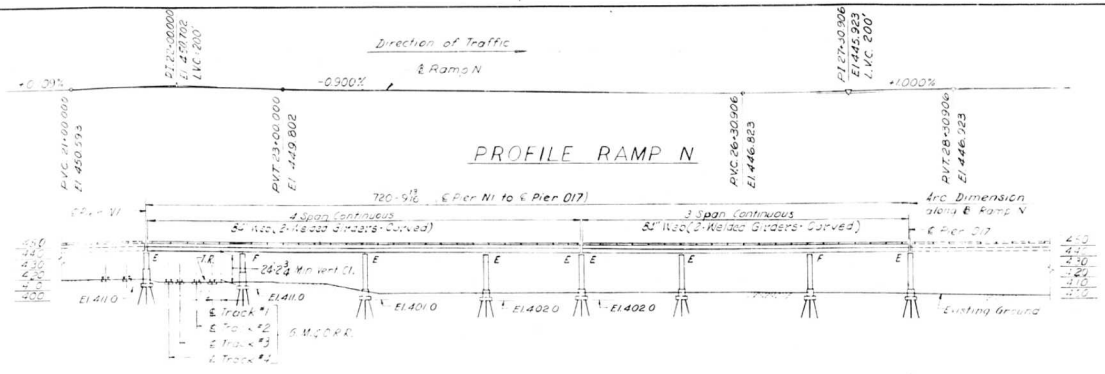
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 1 OF 526

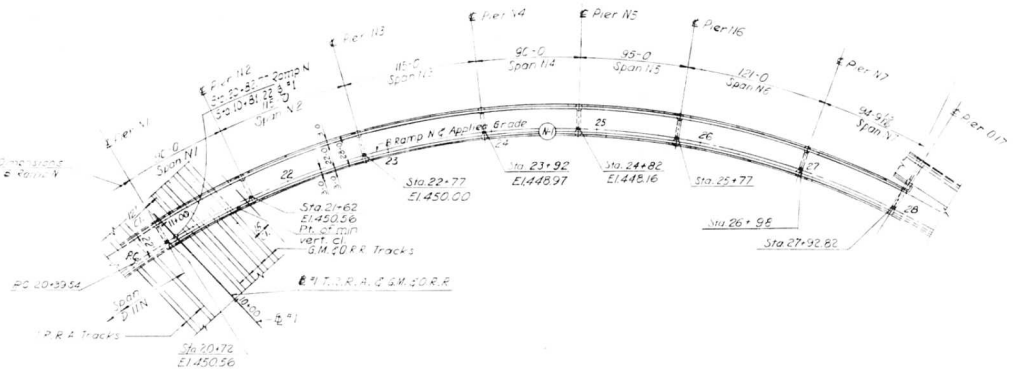
DESIGNED BY
DRAWN BY A.M.
CHECKED BY
APPROVED BY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	36
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



ELEVATION

DEVELOPED LENGTH ALONG ℄ RAMP N



PLAN

THIS SECTION INCLUDES SPANS N1 THRU N4 ONLY. OTHER DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS N1 THRU N7

POPLAR STREET BRIDGE APPROACHES

RAMP "N"

SECTIONS 82-3HVB-1
82-3HVFBE-1
82-3HVD-1

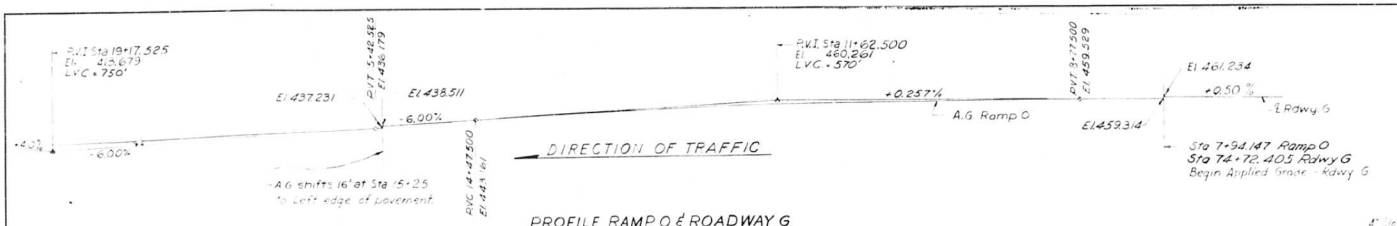
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

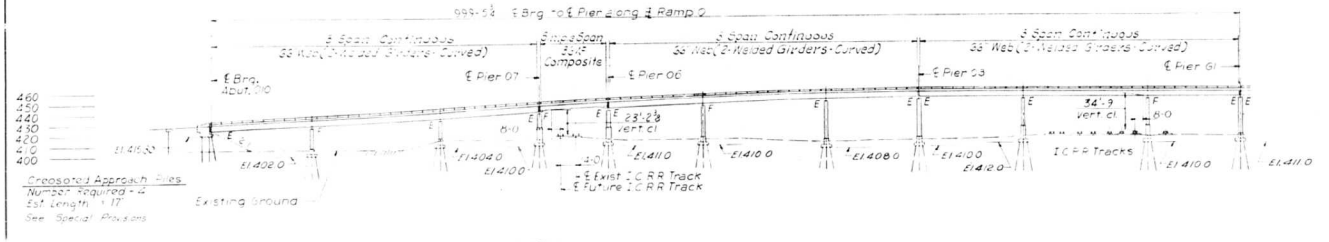
SHEET 17 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

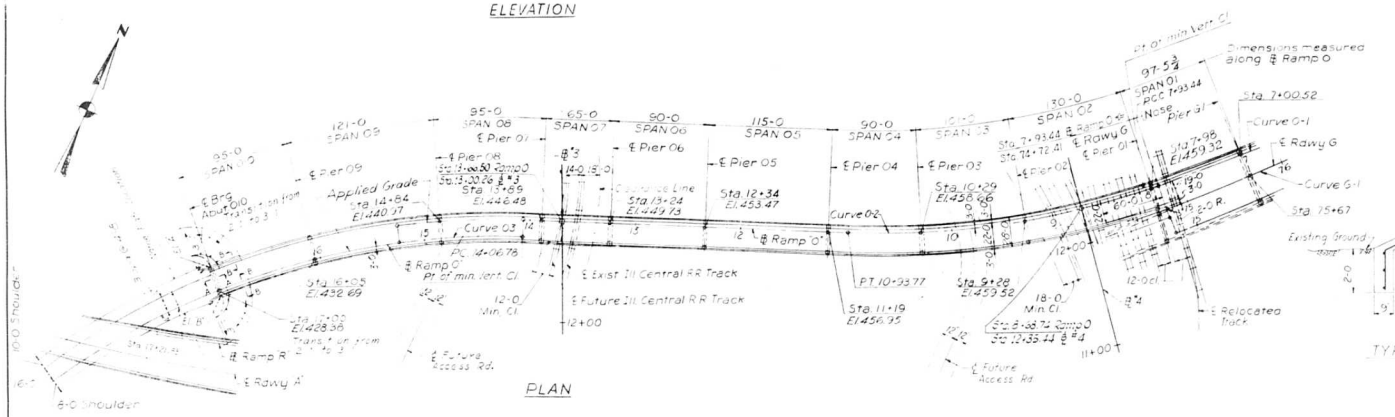
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HV[illegible]	ST. CLAIR	247	37
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



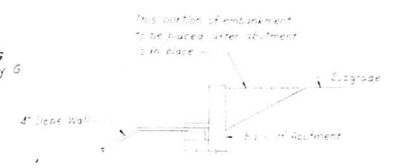
PROFILE RAMP O & ROADWAY G



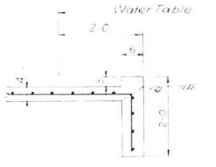
ELEVATION



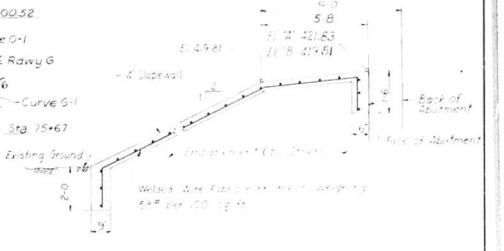
PLAN



SECTION A-A



SECTION B-B



TYPICAL CROSS SECTION OF SLOPE WALL

Note: Plan of Slope Wall similar to Plan shown for Abut. 01 - sh no. 20

BILL OF MATERIAL		
Item	Unit	Quantity
Slope Wall 4"	S.Y.	177
Name Plate	Ea.	1
Embankment	C.Y.	47

DESIGNED BY: N
DRAWN BY: C
CHECKED BY: P.M.R.
APPROVED BY: K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS 01 THRU 010

POPLAR STREET BRIDGE APPROACHES RAMP "O"

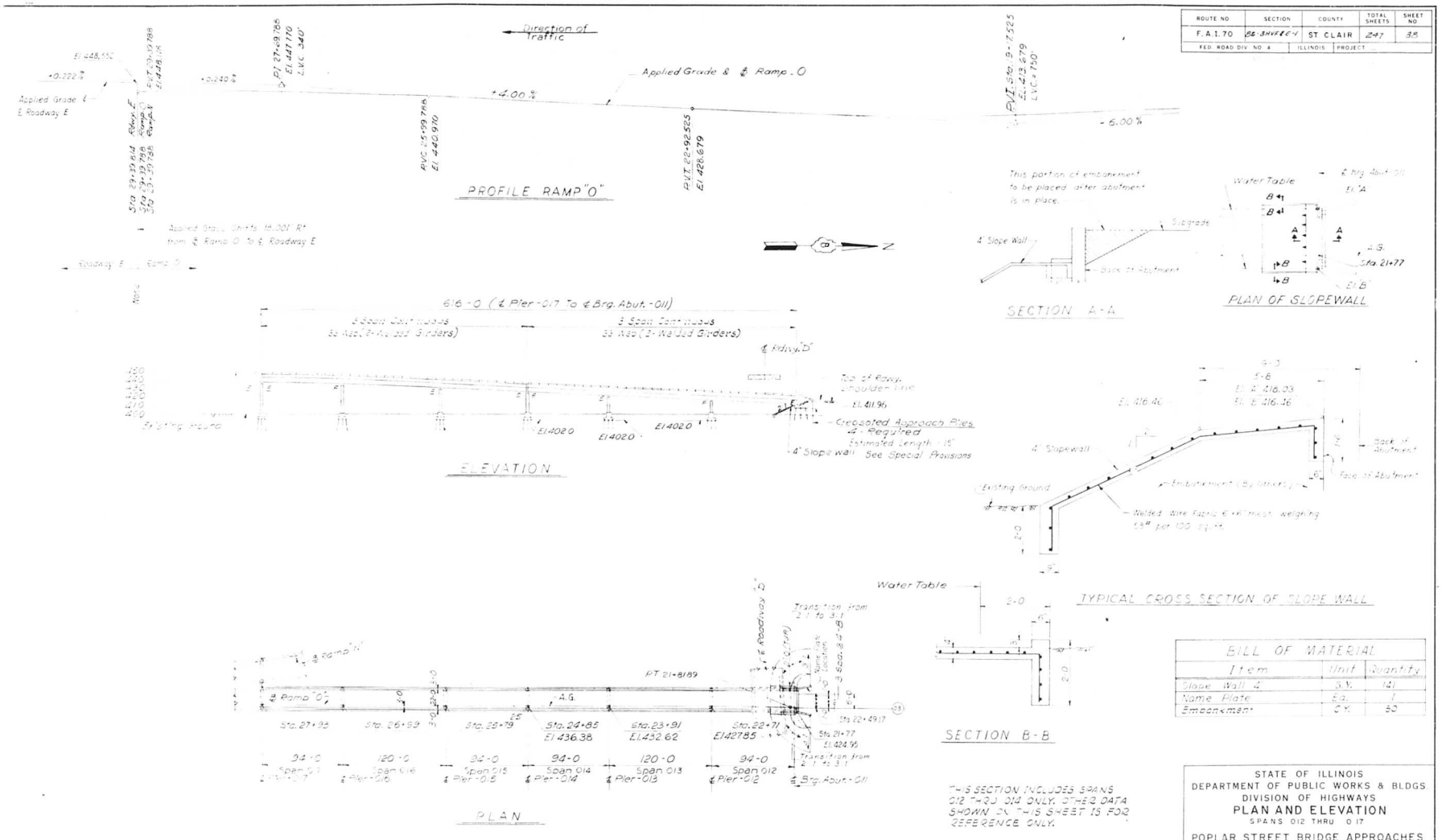
SECTIONS 82-3HV8-1
82-3HVFAE-1
82-3HVD-1

F.A.I. RT. 70 ST. CLAIR CO.

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 7 OF 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	38
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

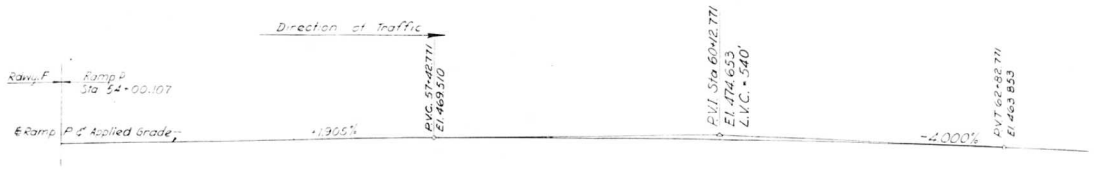


BILL OF MATERIAL		
Item	Unit	Quantity
Slope Wall 4"	S.Y.	141
Name Plate	Ea.	1
Embankment	C.Y.	50

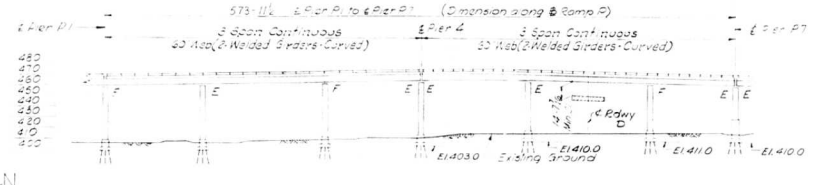
THIS SECTION INCLUDES SPANS 012 THRU 014 ONLY. OTHER DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
PLAN AND ELEVATION
SPANS 012 THRU 017
POPLAR STREET BRIDGE APPROACHES
RAMP "O"
SECTIONS 82-3HVB-1, 82-3HVF&E-1, 82-3HVD-1
F.A.I. RT. 70 ST. CLAIR CO.
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS
SHEET 20 OF 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	39
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



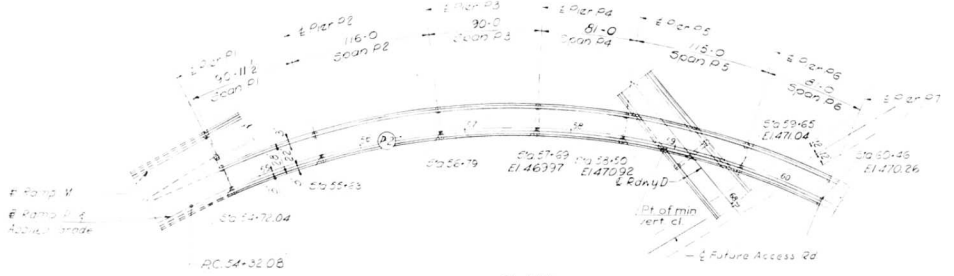
PROFILE RAMP P



ELEVATION

Developed Length along ℄ Ramp P





PLAN

THIS SECTION INCLUDES SPANS P4 THRU P6 ONLY. OTHER DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS P1 THRU P6

POPLAR STREET BRIDGE APPROACHES

RAMP "P"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

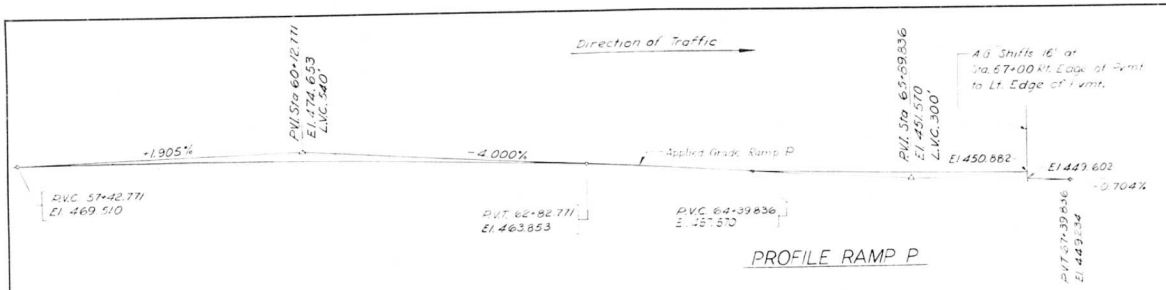
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

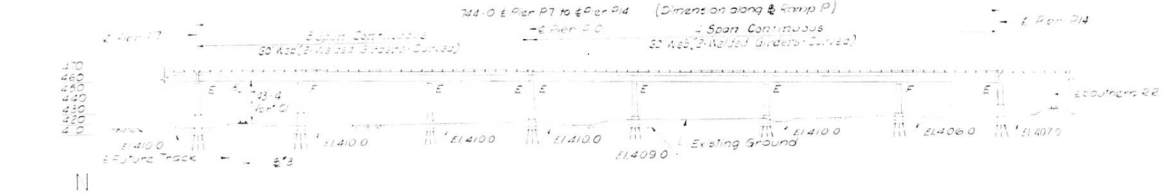
SHEET 21 OF 526

DESIGNED BY S. J. N.
DRAWN BY J. A. M.
CHECKED BY B. H.
APPROVED BY K. A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVB-1 82-3HVFBE-1	ST. CLAIR	247	40
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

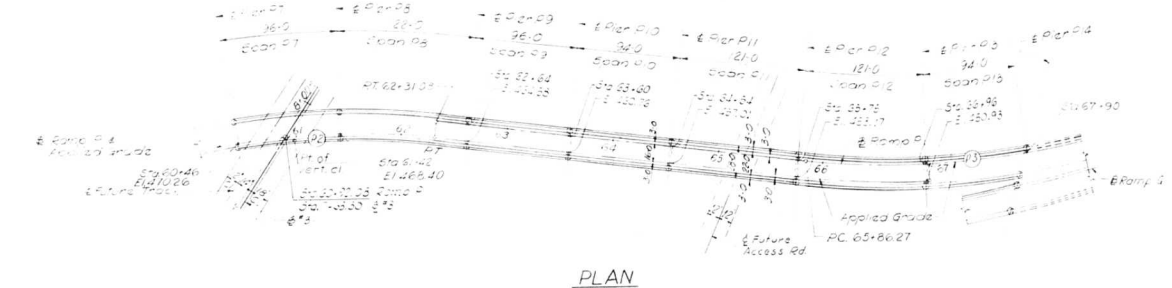


PROFILE RAMP P



ELEVATION

Developed Length along ℄ Ramp P



PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS P7 THRU P13

POPLAR STREET BRIDGE APPROACHES
RAMP "P"

SECTIONS 82-3HVB-1
82-3HVFBE-1
82-3HVD-1

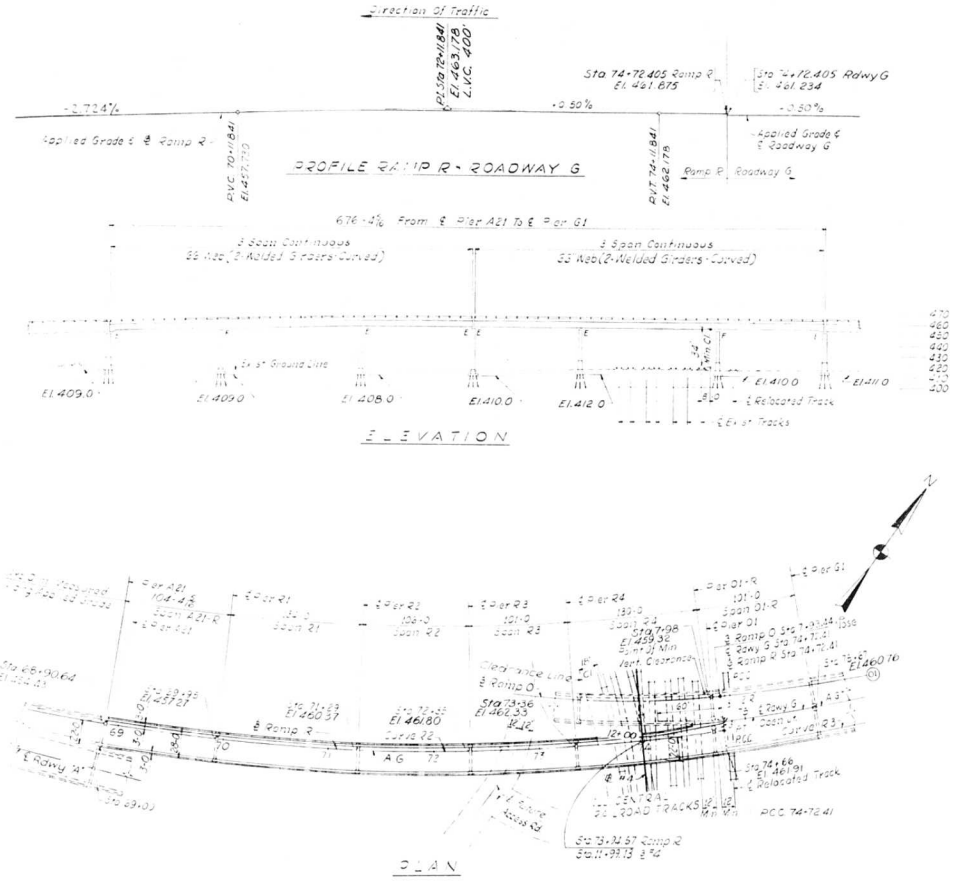
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 22 OF 25 SHEETS

DESIGNED BY C.J.N.
DRAWN BY R.A.M.
CHECKED BY H.H.
APPROVED BY K.A.L.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVB-1	ST. CLAIR	247	-41
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS A21-R, R1 THRU R4 & 01-R

POPLAR STREET BRIDGE APPROACHES
RAMP "R"

SECTIONS 82-3HVB-1
82-3HVBE-1
82-3HVD-1

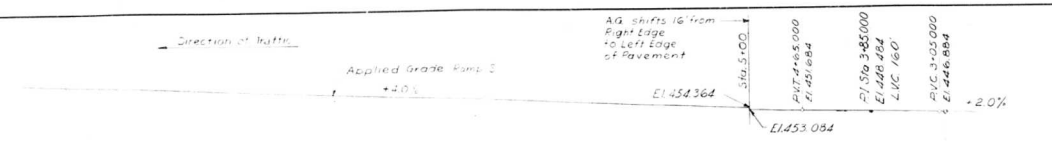
F.A.I. RT. 70 ST. CLAIR CO.

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

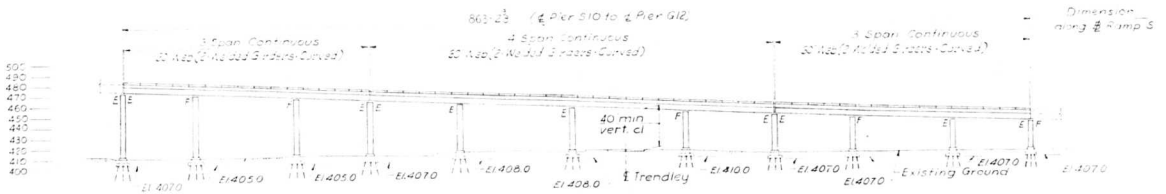
SHEET 23 OF 526

DESIGNED BY K.A.
DRAWN BY A.S.
CHECKED BY
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFE-1	ST. CLAIR	247	47
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



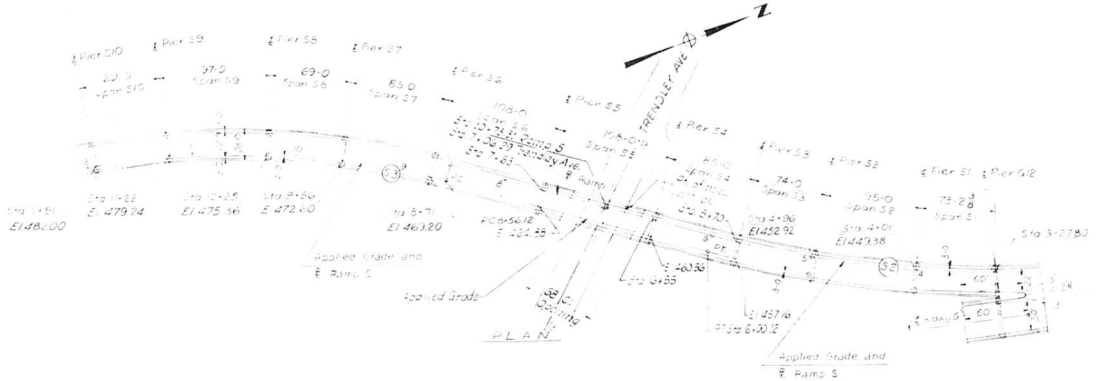
PROFILE RAMP S



ELEVATION
Developed Length along ℄ Ramp S



TRENDLEY AVE. (Existing) PROFILE



PLAN

THIS SECTION INCLUDES ALL STRUCTURE PIERS EXCEPT PIER S10. DATA FOR PIER S10 SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS S1 THRU S10

POPLAR STREET BRIDGE APPROACHES

RAMP "S"

SECTIONS 82-3HVB-1
82-3HVFE-1
82-3HVS-1

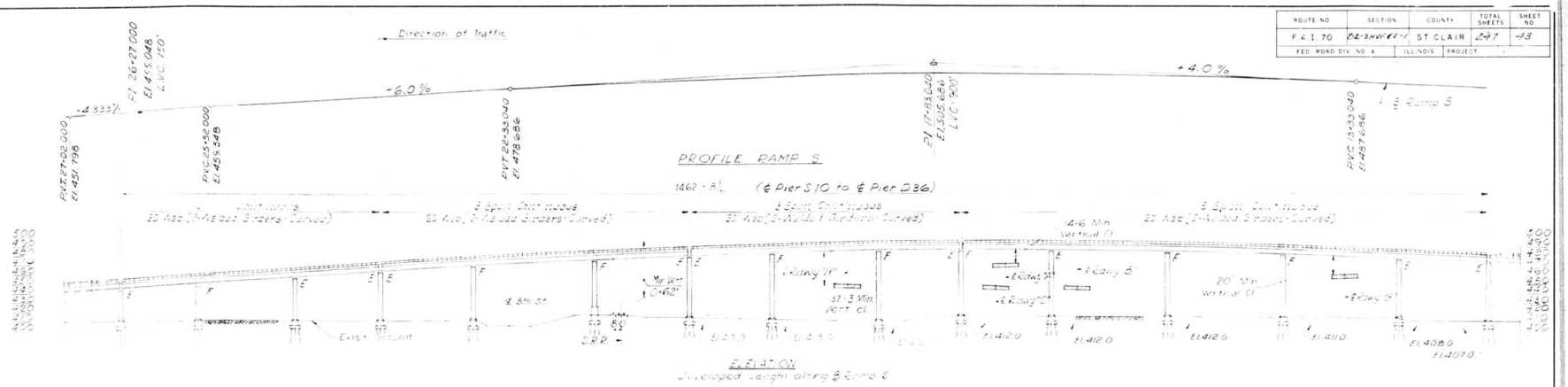
F.A.I. RT. 70 ST. CLAIR CO.

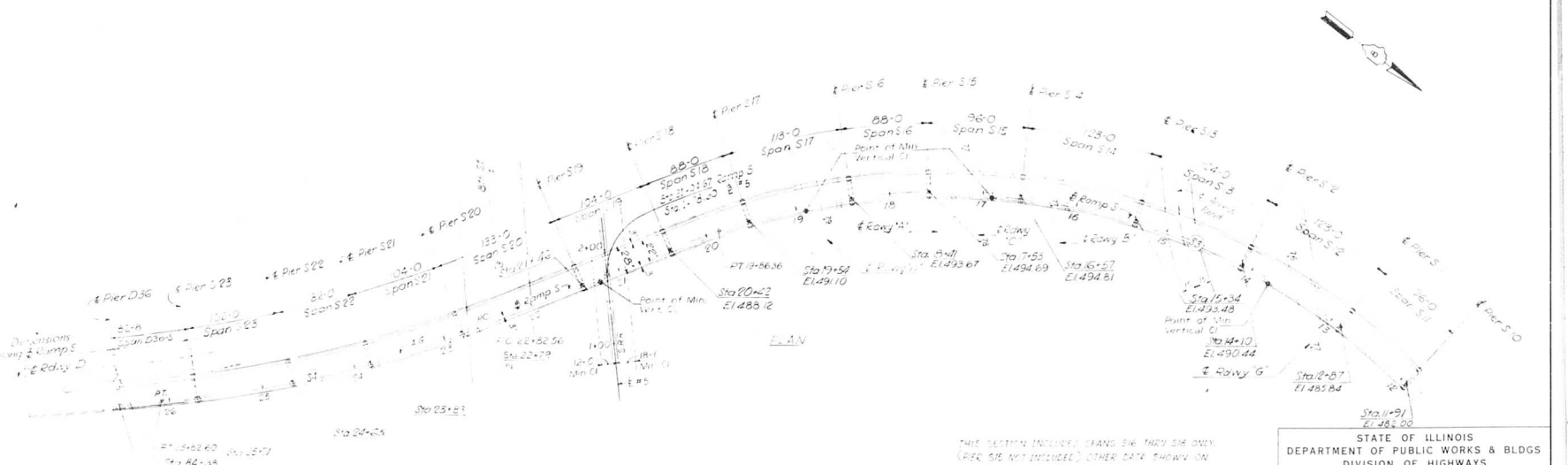
H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 24 of 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVB-1	ST CLAIR	247	-43
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		





THIS SECTION INCLUDES SPANS S16 THRU S14 ONLY. (PIER S16 NOT INCLUDED.) OTHER DATA SHOWN ON THIS SHEET IS FOR REFERENCE ONLY.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

PLAN AND ELEVATION

SPANS S11 THRU S23 & D36-S

POPLAR STREET BRIDGE APPROACHES

RAMP "S"

SECTIONS 82-3HVB-1
82-3HVBE-1
82-3HVD-1

F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 30 OF 247

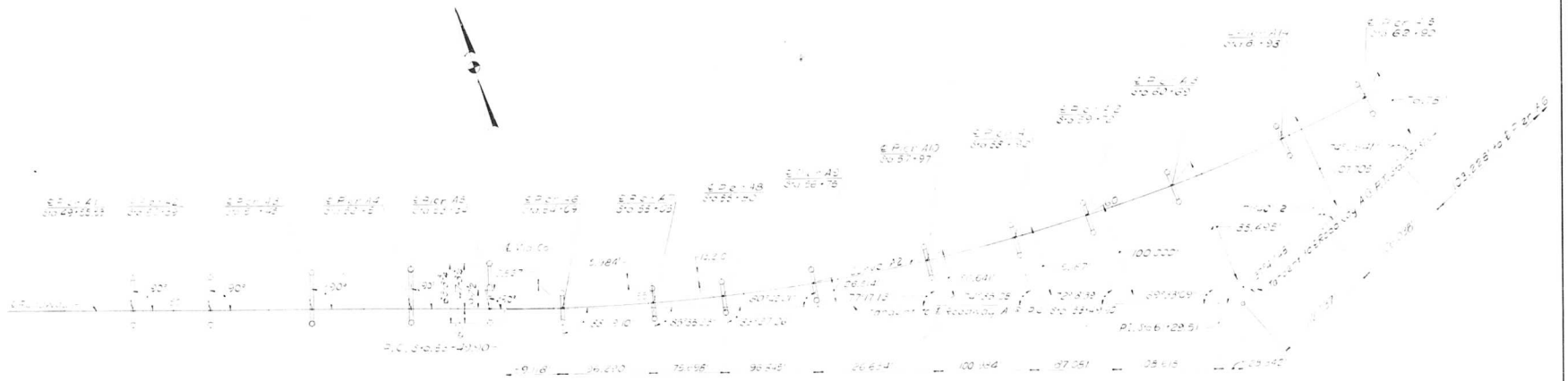
DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF1R	ST. CLAIR	247	74
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

TABLE OF COORDINATES

Pier No.	Roadway A			Azimuth	Right Col. Offset	Left Col. Offset
	Sta.	N Coordinate	E Coordinate			
A1	49+55.53	9295.902	30826.071	16°49'09"	16·0	36·048
A2	50+39	9271.350	30905.971	16°49'09"	16·0	37·6
A3	51+45	9240.679	31007.436	16°49'09"	16·0	39·9
A4	52+51	9210.008	31108.902	16°49'09"	16·0	41·11
A5	53+34	9185.991	31188.351	16°49'09"	16·0	42·344
A6	54+08	9165.122	31260.356	5°26'18"	16·0	16·0
A7	54+08	9142.268	31353.616	21°24'32"	16·0	16·0
A8	55+60	9127.813	31427.147	10°16'35"	16·0	16·0
A9	56+75	9112.780	31520.958	7°24'50"	16·0	16·0
A10	57+97	9100.367	31642.236	24°06'22"	16·0	16·0
A11	58+92	9095.501	31737.218	12°24'17"	16·0	16·0
A12	59+72	9096.427	31817.215	17°39'48"	16·0	16·3
A13	60+69	9099.234	31913.41.28	176°22'16"	16·0	17·1
A14	61+93	9110.862	32037.560	172°50'45"	16·0	18·11½
A15	62+90	9125.214	32133.476	170°05'16"	16·0	21·0½

CURVE A2
D = 6°-29.5
Δ = 45°-18'.2
T = 28.30.46
R = 206.00
L = 45.774
E = 3.08.61
E = 3.1.96



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
GEOMETRIC LAYOUT
PIERS A1 THRU A15
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 26 OF 526

DESIGNED BY R.M.S.
DRAWN BY I.M.
CHECKED BY R.M.S.
APPROVED BY K.A.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVFAE-1	ST. CLAIR	247	45
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

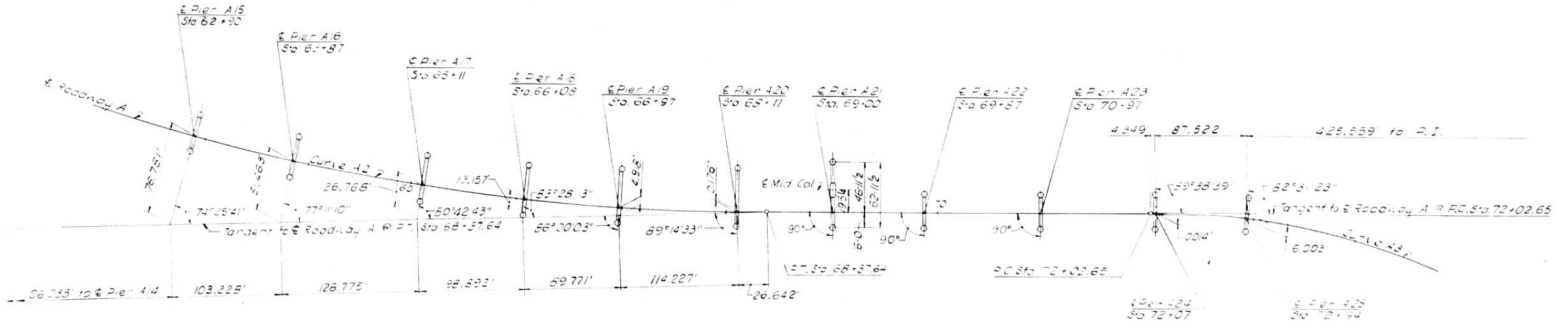


TABLE OF COORDINATES

Pier No.	℄ Roadway A Station	N Coordinate	E Coordinate	Azimuth	Right Col. Offset	Left Col. Offset
A15	63+87	9144.265	32228.590	167° 19' 46"	16'-0	23'-8
A17	65+11	9175.167	32348.657	168° 48' 13"	16'-0	27'-9
A18	66+08	9204.454	32441.120	161° 02' 44"	16'-0	31'-7
A19	66+97	9235.212	32524.629	158° 30' 53"	16'-0	35'-6
A20	68+11	9279.944	32629.470	155° 16' 24"	16'-0	41'-2
A21	69+00	9316.078	32709.886	154° 30' 57"	16'-0	46'-11½
A22	69+87	9355.811	32788.421	154° 30' 57"	16'-0	16'-0
A23	70+97	9402.839	32887.716	154° 30' 57"	16'-0	16'-0
A24	72+07	9450.156	32987.021	154° 52' 16"	16'-0	16'-0
A25	72+94	9482.117	33067.673	161° 59' 34"	16'-0	16'-0

Curve A3
P.I. 77+20.08
Δ = 73°56'32"
D = 5°11'06"
R = 700.00'
L = 591.16'
T = 347.43'
E = 170.48'

DESIGNED BY R.M.R.
DRAWN BY T.M.
CHECKED BY R.A.E.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
GEOMETRIC LAYOUT
PIERS A15 THRU A25
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

SECTIONS 82-3HVB-1
82-3HVFAE-1
82-3HVD-1
F.A.I. RT. 70 ST. CLAIR CO.

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 21 of 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I 70	82-3HVF&E-1	ST CLAIR	247	46
FED ROAD DIV NO 4	ILLINOIS	PROJECT		

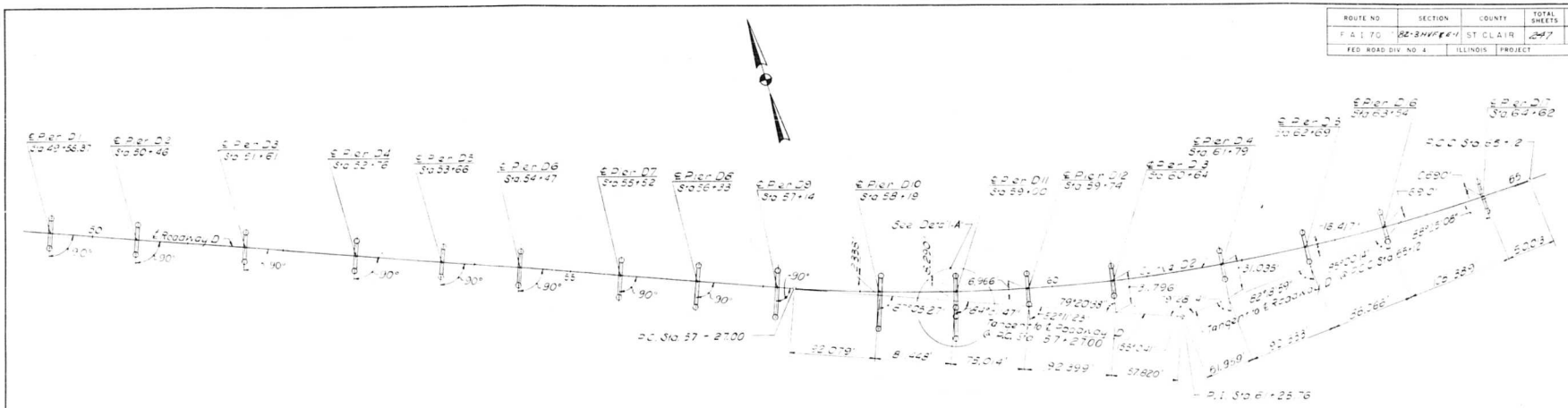
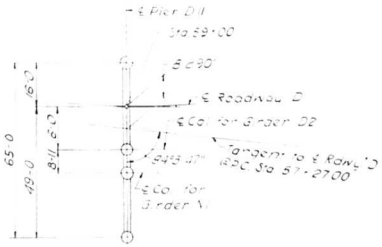


TABLE OF COORDINATES

Pier No	℄ Roadway D Sta.	N Coordinate	E Coordinate	Azimuth	Right Col Offset	Left Col Offset
D1	49+55.37	9186.160	30758.684	21°04'29"	16·0	16·0
D2	50+46	9153.571	30873.252	21°04'29"	16·0	16·0
D3	51+6	9112.219	30980.569	21°04'29"	16·0	16·0
D4	52+76	9070.366	31087.867	21°04'29"	16·0	16·0
D5	53+66	9038.504	31171.847	21°04'29"	6·0	16·0
D6	54+47	9009.377	31247.430	21°04'29"	19·8	16·0
D7	55+52	8971.621	31345.406	21°04'29"	24·6	16·0
D8	56+33	8942.494	31420.968	21°04'29"	28·2	16·0
D9	57+14	8913.368	31496.571	21°04'29"	31·10	16·0
D10	58+19	8877.805	31595.350	18°09'56"	39·1	16·0
D11	59+00	8854.280	31672.852	15°36'16"	49·0	16·0
D12	59+74	8835.535	31744.511	13°15'52"	16·0	16·0
D13	60+64	8817.355	31832.587	10°25'07"	16·0	16·0
D14	61+79	8800.173	31946.274	6°46'57"	16·0	16·0
D15	62+69	8791.768	32035.572	3°56'12"	16·0	16·0
D16	63+54	8787.923	32120.777	1°14'56"	16·0	16·0
D17	64+62	8785.788	32228.757	177°50'02"	16·0	16·0

Curve D2

P.I. = 61+25.76
Δ = 24°49'19"
D = 3°09'43"
R = 1,812.00'
L = 785.00'
T = 398.76'
E = 43.36'



DETAIL "A"

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
GEOMETRIC LAYOUT
PIERS D1 THRU D17
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

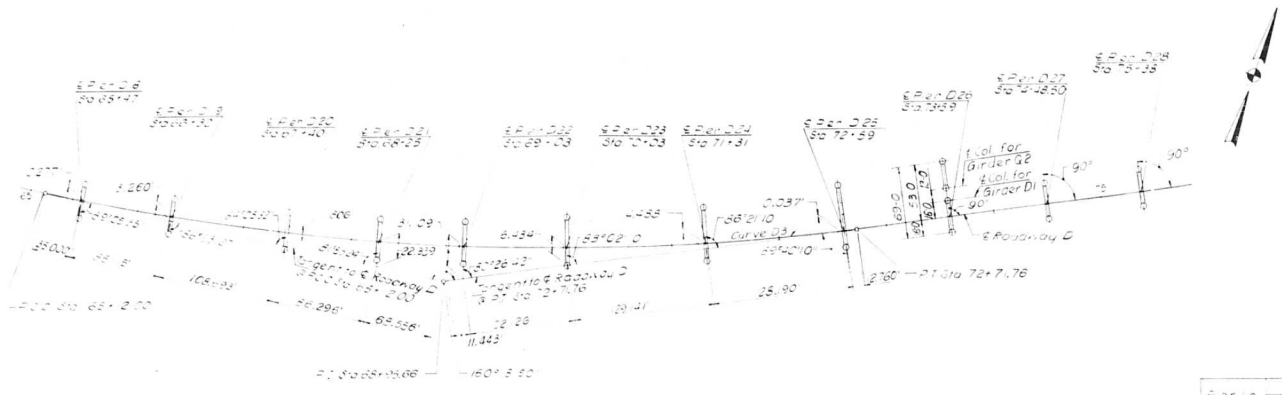
F A I RT 70 ST CLAIR CO

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

SHEET 28 of 526

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY S.A.B.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HV&E-1	ST. CLAIR	247	47
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		


℄ Pier D6
Sta 65+47
℄ Pier D7
Sta 66+22
℄ Pier D8
Sta 66+97
℄ Pier D9
Sta 67+72
℄ Pier D10
Sta 68+47
℄ Pier D11
Sta 69+03
℄ Pier D12
Sta 70+03
℄ Pier D13
Sta 71+81
℄ Pier D14
Sta 72+59
℄ Pier D15
Sta 73+59
℄ Pier D16
Sta 74+59
℄ Pier D17
Sta 75+59
5.260
6.434
6.485
6.037
56°21'10"
Curve D3
53°40'10"
53°02'0"
Tangent to Roadway D
Sta 71+76.76
Tangent to Roadway D
Sta 70+28.42
Tangent to Roadway D
Sta 69+03.00
Tangent to Roadway D
Sta 68+00.00
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Sta -5+00.00
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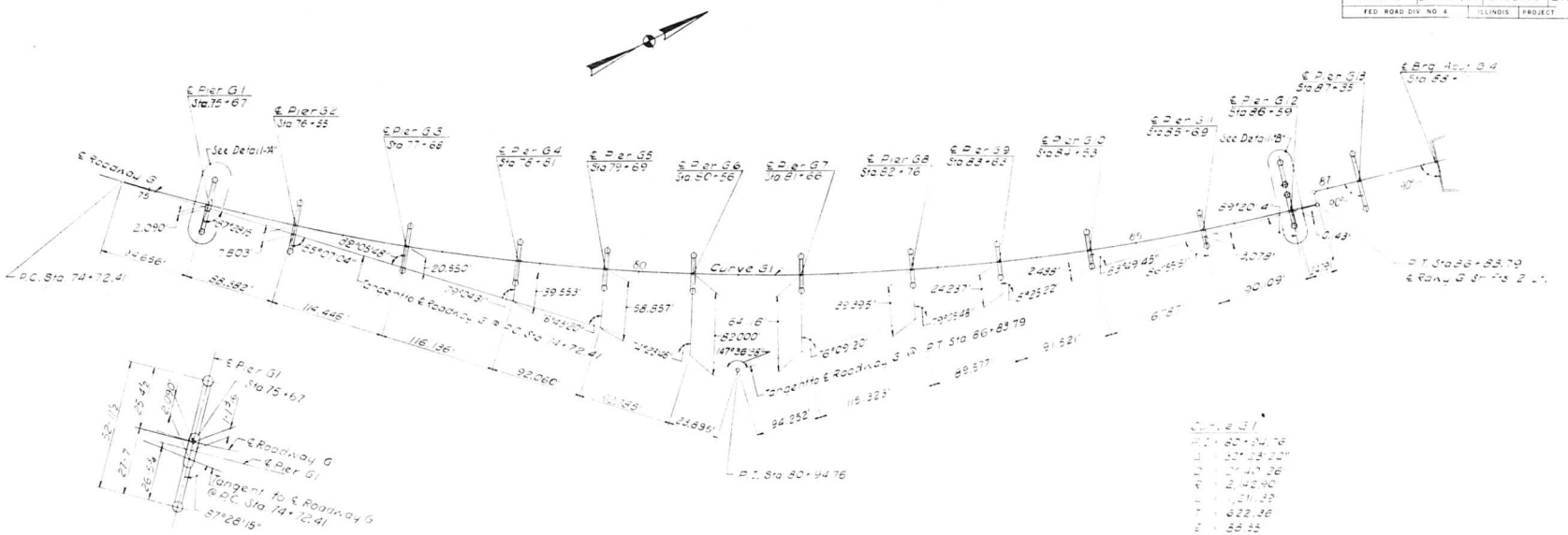
Sta -6+00.00
Tangent to Roadway D
Sta

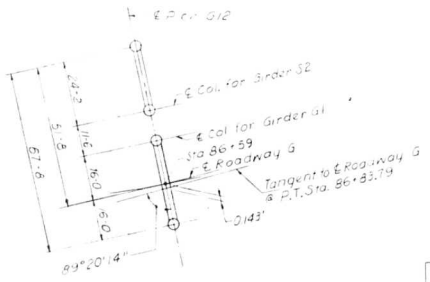
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	48
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



DETAIL - "A"

TABLE OF COORDINATES

Pier No	℄ Roadway G Sta.	N. Coordinate	E. Coordinate	Azimuth	Right Col Offset	Left Col Offset
G 1	75+67	9792.526	33203.621	130°59'21"	27-7	25-4½
G 2	76+55	9860.[illegible]8	33259.962	128°38'10"	26-4 13/16	23-2 3/8
G 3	77+68	9950.204	33328.157	125°36'54"	23-10	20-10
G 4	78+81	10043.759	33391.508	122°35'37"	20-9	18-11
G 5	79+69	10116.853	33437.376	120°14'26"	18-10	17-9
G 6	80+56	10194.882	33479.655	117°54'53"	17-5½	16-10½
G 7	81+66	10293.362	33528.635	114°55'24"	16-4	15-3
G 8	82+76	10394.226	33572.497	112°01'56"	16-0	15-0
G 9	83+63	10475.513	33603.487	109°42'22"	16-0	16-0
G 10	84+53	10560.854	33632.047	107°17'59"	16-0	16-0
G 11	85+69	10672.486	33663.528	104°11'53"	16-0	16-0
G 12	86+59	10760.174	33683.764	101°47'30"	16-0	51-8
G 13	87+35	10637.033	33686.800	101°07'44"	28-0	29-11
℄ Brg. Abut. G14	88+11	10911.604	33701.469	101°07'44"	28-0	22-9 5/16



DETAIL - "B"

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GEOMETRIC LAYOUT

PIERS G1 THRU G14

POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

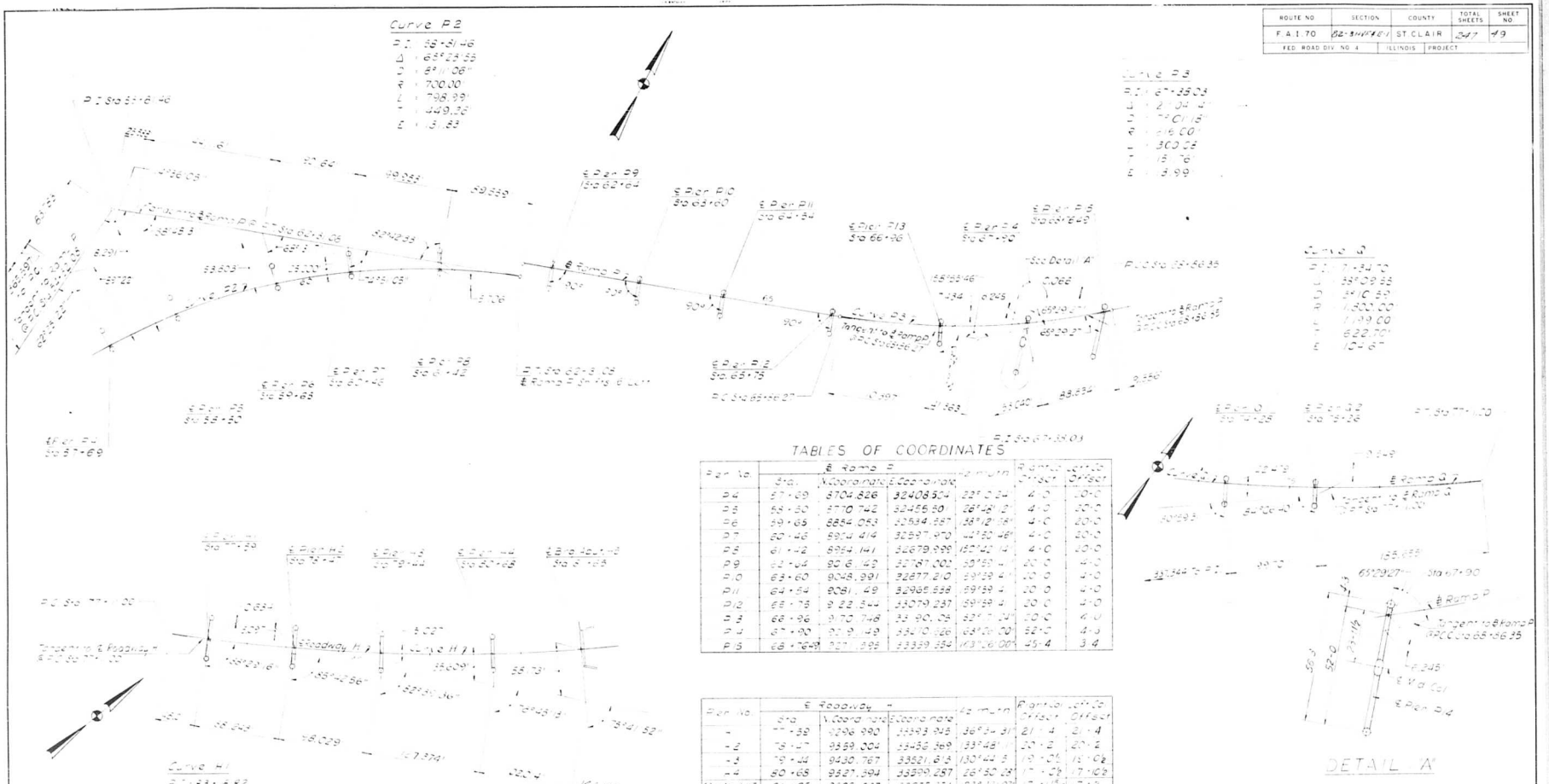
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 30 OF 52

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY S.A.B.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFB(1)	ST. CLAIR	247	49
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



TABLES OF COORDINATES

Per. No.	℄ Ramp P			Azimuth	Ramp Offset	Left Offset
	Sta.	N Coordinate	E Coordinate			
P4	57+69	8704.826	32408.524	221°0'24"	40'	20'
P5	58+30	8770.742	32455.60	36°46'12"	40'	20'
P6	59+65	8854.053	32534.357	38°12'58"	40'	20'
P7	60+46	8904.414	32597.470	42°50'46"	40'	20'
P8	61+42	8954.141	32679.999	150°42'14"	40'	20'
P9	62+64	9016.142	32787.002	39°59'4"	20'	40'
P10	63+60	9048.991	32877.210	29°39'41"	20'	40'
P11	64+54	9081.149	32965.598	29°59'4"	20'	40'
P12	65+75	9122.342	33079.237	29°59'4"	20'	40'
P3	66+96	9170.748	33190.026	32°7'44"	20'	40'
P2	67+90	9219.149	33310.126	69°20'27"	52'	40'
P1	68+76.89	9221.595	33339.352	113°40'00"	25'	3'4

Per. No.	℄ Roadway "H"			Azimuth	Right Offset	Left Offset
	Sta.	N Coordinate	E Coordinate			
-	77+39	9296.990	33393.945	36°34'31"	21'4	21'4
-2	78+07	9359.304	33456.369	33°48'11"	20'2	20'2
-3	79+44	9430.787	33521.613	130°44'5"	19'10	15'10
-4	80+65	9521.594	33590.287	26°50'28"	17'8	17'10
Tangent to ℄ Ramp H5	81+65	9606.537	33655.251	23°41'07"	17'8	17'2

Per. No.	℄ Ramp Q			Azimuth	Ramp Offset	Left Offset
	Sta.	N Coordinate	E Coordinate			
Q1	74+28	9088.281	33 38.697	47°25'40"	20'0	4'0
Q2	75+26	9143.701	33216.896	140°35'35"	20'0	4'0

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GEOMETRIC LAYOUT

PIERS P4 THRU P15, Q1 & Q2, H1 THRU H5

POPLAR STREET BRIDGE APPROACHES
RAMPS P & Q AND ROADWAY "H"

SECTIONS 82-3HVB-1
82-3HVFAE-1
82-3HVD-1

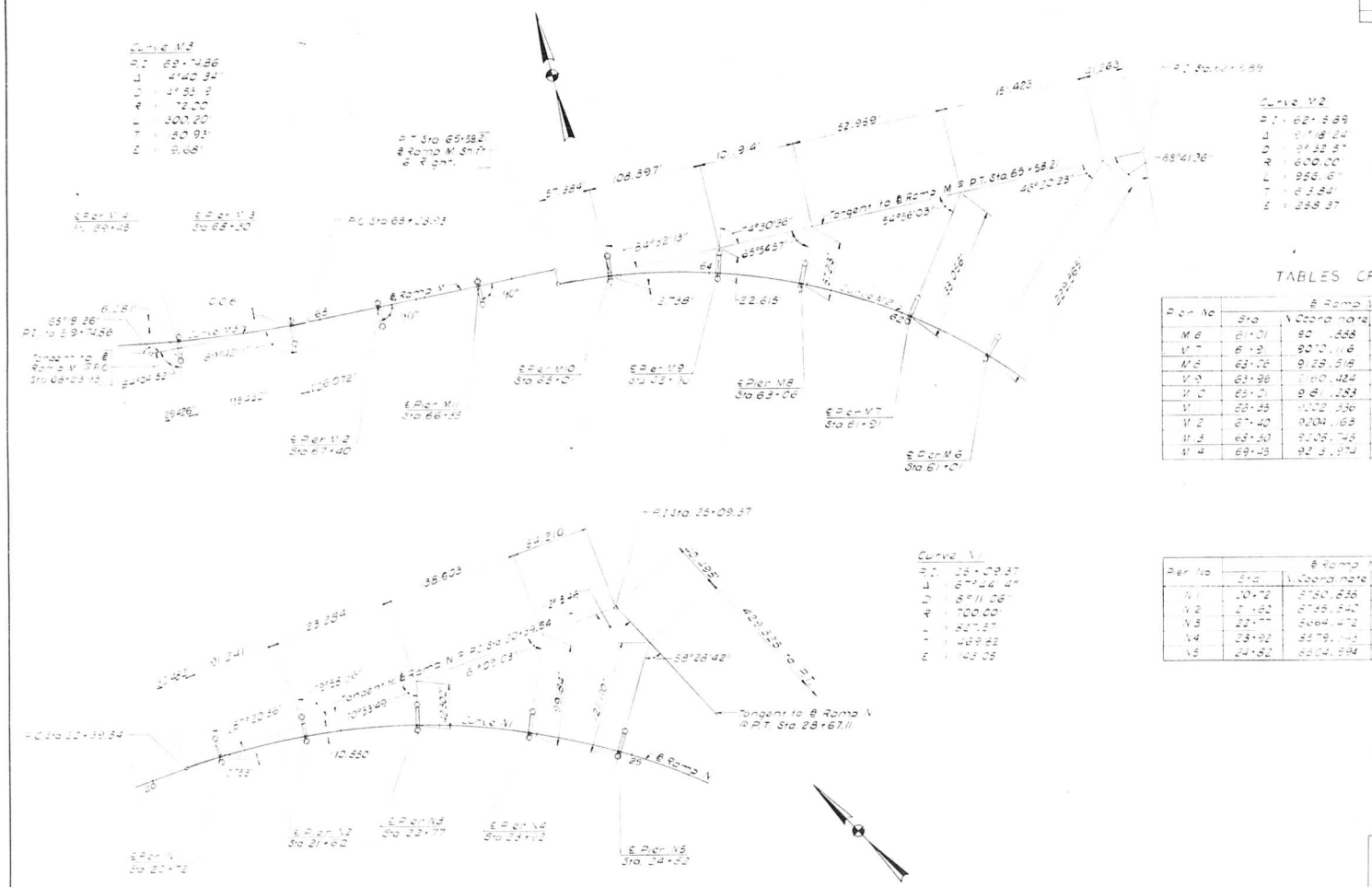
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 21 OF 526

DESIGNED BY R.M.C.
DRAWN BY I.M.
CHECKED BY S.A.B.
APPROVED BY R.A.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	50
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



TABLES OF COORDINATES

Pier No	℄ Ramp M			Azimuth	Right Col Offset	Left Col Offset
	Sta	N Coordinate	E Coordinate			
M 6	61+01	90 .888	32083.00	44°39'26"	20.0	4.0
M 7	61+91	9070.116	32014.555	36°03'46"	20.0	4.0
M 8	63+06	9128.518	3[illegible]8.722	25°04'52"	20.0	4.0
M 9	63+96	9160.424	3831.658	16°29'12"	20.0	4.0
M 10	65+01	9161.283	3728.867	6°27'36"	20.0	4.0
M 11	66+35	9202.336	3595.320	0°59'50"	4.0	20.0
M 12	67+40	9204.163	3490.336	0°59'50"	4.0	20.0
M 13	68+30	9205.745	3400.350	1°17'39"	4.0	20.0
M 14	69+45	9213.974	3285.691	6°54'58"	4.0	20.0

Pier No	℄ Ramp N			Azimuth	Right Col Offset	Left Col Offset
	Sta	N Coordinate	E Coordinate			
N 1	20+72	8780.836	3727.627	26°20'16"	4.0	20.0
N 2	21+62	8735.540	3805.499	33°42'16"	4.0	20.0
N 3	22+77	8664.472	3895.508	43°07'03"	4.0	20.0
N 4	23+92	8579.[illegible]	3972.634	52°31'49"	4.0	20.0
N 5	24+82	8504.594	3022.648	59°53'19"	4.0	20.0

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

GEOMETRIC LAYOUT

PIERS M6 THRU M14, N1 THRU N5

POPLAR STREET BRIDGE APPROACHES
RAMPS "M" & "N"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

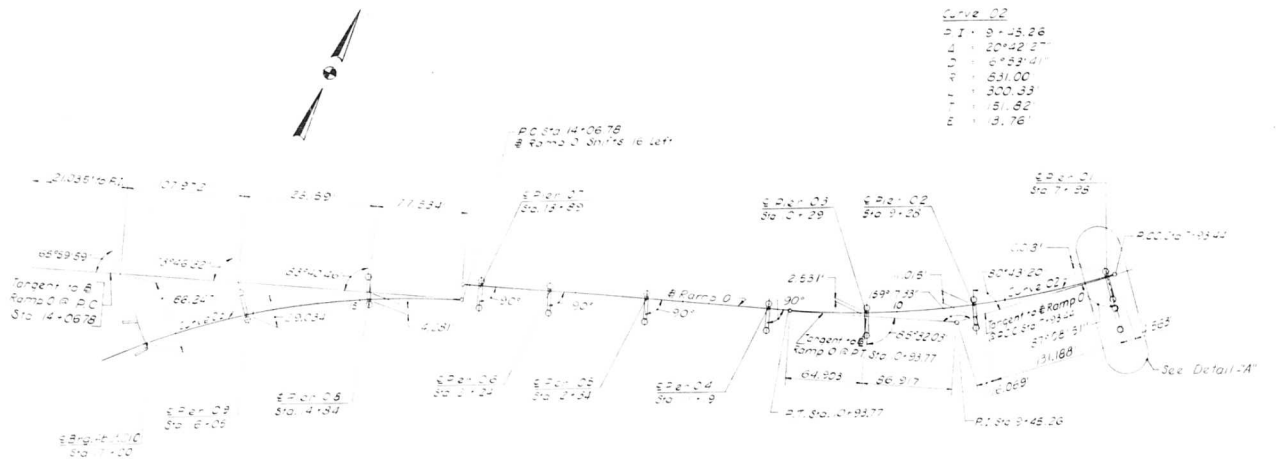
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 32 OF 526

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY S.A.B.
APPROVED BY K.A.

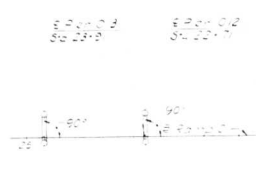
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFB-1	ST. CLAIR	247	23
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



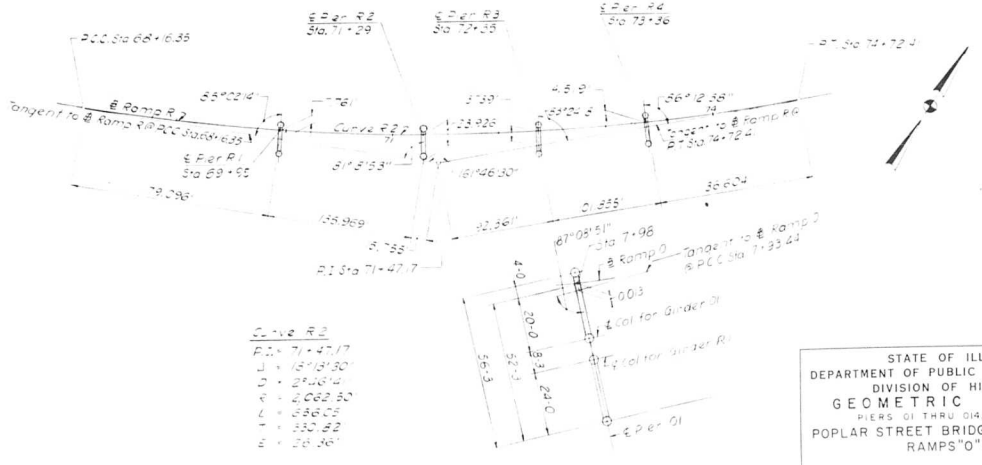
TABLES OF COORDINATES

Pier No.	℄ Ramp O Sta.	℄ Ramp O N Coordinate	℄ Ramp O E Coordinate	Azimuth	Ramp O Offset	Left Ramp O Offset
0	7+98	9736.343	33119.365	85°03'53"	4'-0	52'-3
0.2	0+28	9652.881	33020.366	44°29'24"	4'-0	20'-0
0.3	0+29	9599.350	32934.794	5°21'4"	4'-0	20'-0
0.4	11+9	9360.352	32853.776	85°55'11"	4'-0	20'-0
0.5	12+34	9343.430	32746.704	85°55'11"	4'-0	20'-0
0.6	3+24	9476.705	32666.356	85°55'11"	4'-0	20'-0
0.7	3+69	9250.187	32627.215	85°55'11"	4'-0	20'-0
0.8	4+54	9392.997	32528.887	49°55'11"	20'-0	4'-0
0.9	6+06	9313.173	32450.322	39°41'43"	20'-0	4'-0
℄ Brg Abut 100	7+00	9256.902	32362.259	3°55'0"	20'-0	4'-0
℄ Brg Abut 01	31+77	8634.370	32184.201	92°52'35"	20'-0	4'-0
0.2	22+71	8730.959	32179.103	92°28'30"	20'-0	4'-0
0.3	23+91	8850.61	32174.788	92°28'34"	20'-0	4'-0
0.4	24+85	8945.668	32170.677	92°28'34"	20'-0	4'-0

Pier No.	℄ Ramp R Sta.	N Coordinate	E Coordinate	Azimuth	R Ramp Offset	Left R Offset
R 1	69+55	9411.773	32750.26	266°48'50"	20'-0	4'-0
R 2	71+29	9488.774	32683.184	334°31'29"	20'-0	4'-0
R 3	72+35	9554.630	32673.810	40°26'48"	20'-0	4'-0
R 4	73+36	9621.006	33048.695	37°8'08"	20'-0	4'-0



Curve 03
P.I. = 6+39.46
Δ = 63°26'37"
D = 8°11'06"
R = 700.00
L = 775
T = 443.70
E = 122.94



Curve R2
P.I. = 71+47.17
Δ = 134°13'30"
D = 24°06'14"
R = 237.62'
L = 556.65
T = 550.82
E = 228.36'

DETAIL - A"

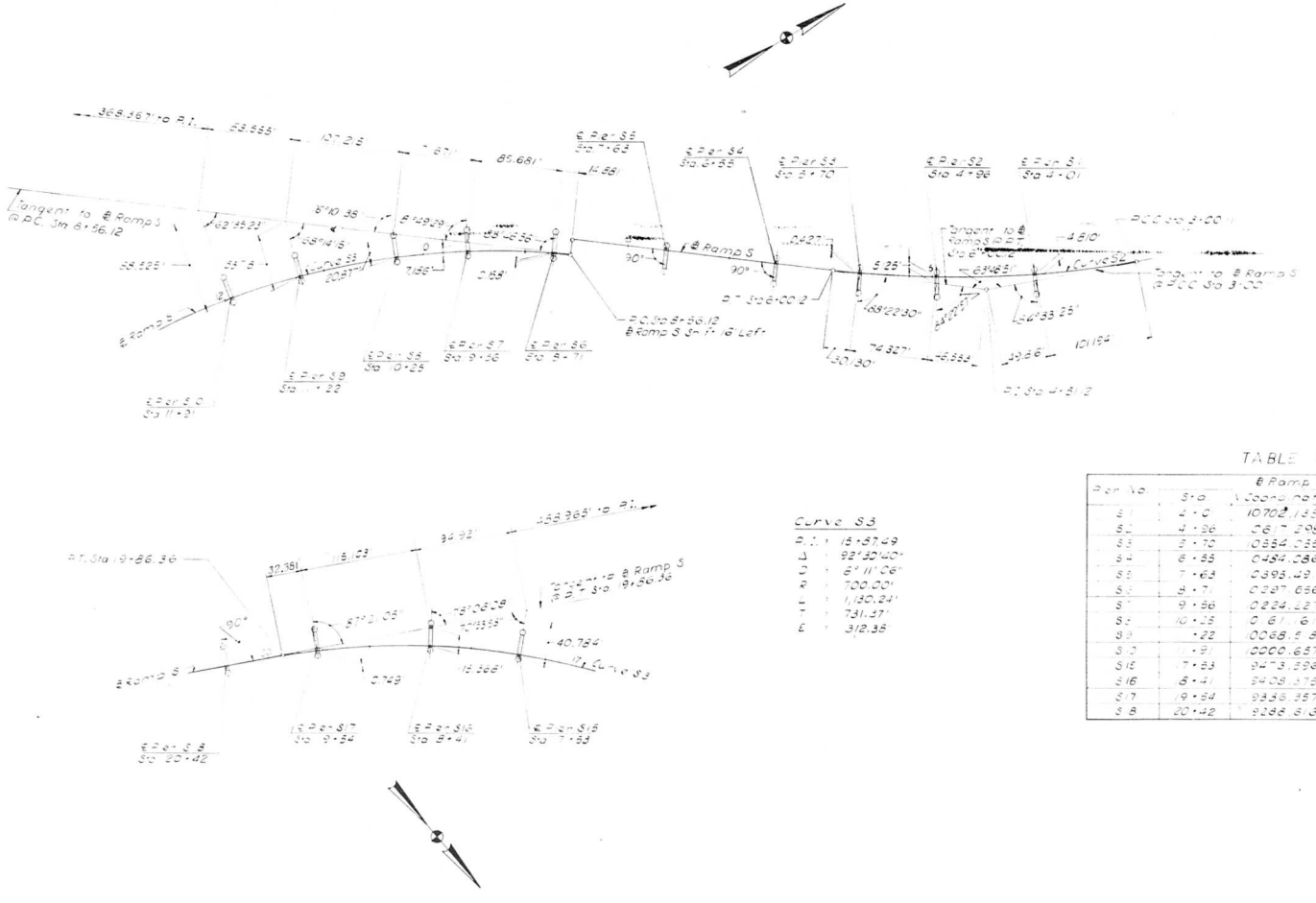
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
GEOMETRIC LAYOUT
PIERS 01 THRU 014, R1 THRU R4
POPLAR STREET BRIDGE APPROACHES
RAMPS "O" & "R"
SECTIONS 82-3HVB-1
82-3HVFB-1
82-3HVD-1
F.A.I. RT. 70 ST. CLAIR CO.

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY S.G.B.
APPROVED BY R.A.

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 23 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	52
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



Curve S2

P.I. : 4+51.12
Δ : 6°11'09"
D : 5°23'42"
R : 1062.00'
L : 300.01'
T : 151.01'
E : 10.68'

Curve S3

P.I. : 15+87.49
Δ : 92°30'40"
D : 8°11'06"
R : 700.00'
L : 1,130.24'
T : 731.37'
E : 312.38'

TABLE OF COORDINATES

Pier No.	℄ Ramp S Sta.	N Coordinate	E Coordinate	42" Mult.	Right Col. Offset	Left Col. Offset
S1	4+01	10702.135	33609.505	114°08'23"	4+0	20+0
S2	4+96	10617.298	33566.330	119°15'34"	4+0	20+0
S3	5+70	10554.055	33528.436	123°15'27"	4+0	20+0
S4	6+55	10484.086	33480.178	124°52'57"	4+0	20+0
S5	7+63	10395.491	33418.413	124°52'57"	4+0	20+0
S6	8+71	10287.656	33369.904	123°39'53"	20+0	4+0
S7	9+56	10224.227	33327.191	116°42'26"	20+0	4+0
S8	10+25	10161.161	33299.266	103°35'	20+0	4+0
S9	11+22	10068.518	33270.784	93°07'12"	20+0	4+0
S10	11+91	10000.657	33258.456	97°28'20"	20+0	4+0
S15	17+53	9473.596	33404.898	51°28'19"	20+0	4+0
S16	18+41	9408.375	33463.891	44°16'09"	20+0	4+0
S17	19+54	9336.357	33550.808	35°01'12"	20+0	4+0
S18	20+42	9288.613	33624.722	32°22'17"	20+0	4+0

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
GEOMETRIC LAYOUT
PIERS S1 THRU S18
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

SECTIONS 82-3HVB-1
82-3HVF&E-1
82-3HVD-1

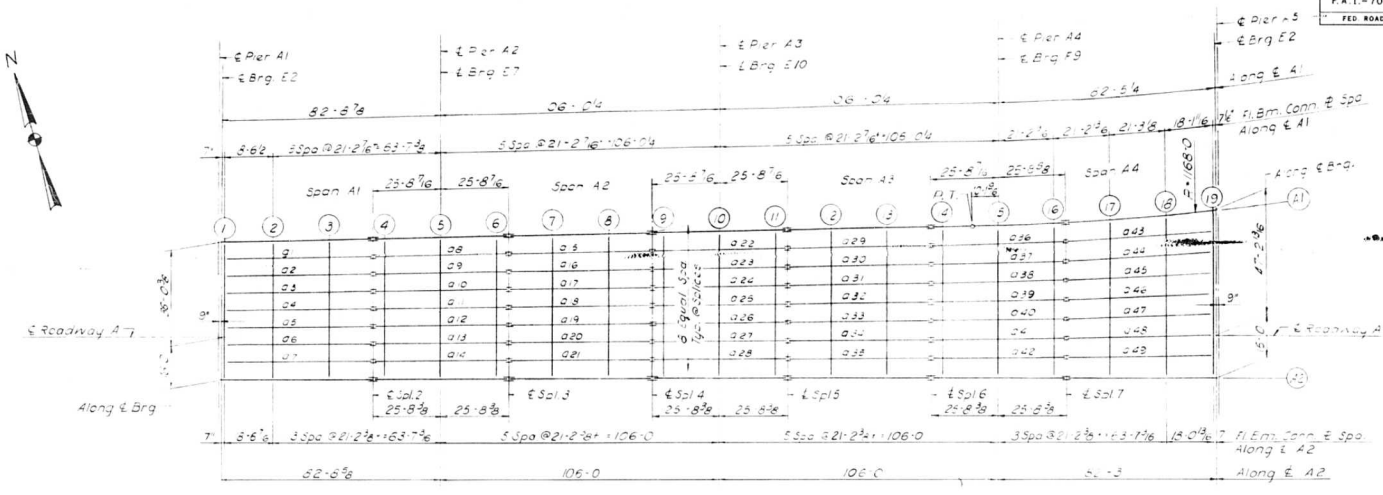
F.A.I. RT. 70 ST. CLAIR CO.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 34 OF 526

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY S.Q.B.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	53
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS A1 THRU A4



FLOOR BEAM LOCATION SKETCH

ELEVATION TOP OF GIRDER WEB

		GIR. A1	GIR. A2	DIFF.			GIR. A1	GIR. A2	DIFF.
CL. BRG.		449.976	450.788	.812	FLOOR BEAM	11	444.734	445.899	1.165
FLOOR BEAM	1	449.959	450.770	.811	SPLICE	5	444.644	445.839	1.195
FLOOR BEAM	2	449.387	450.205	.818	FLOOR BEAM	12	444.397	445.706	1.309
FLOOR BEAM	3	448.733	449.558	.825	FLOOR BEAM	13	444.084	445.537	1.453
SPLICE	2	448.218	449.048	.830	SPLICE	6	443.837	445.403	1.566
FLOOR BEAM	4	448.094	448.925	.830	FLOOR BEAM	14	443.774	445.423	1.649
FLOOR BEAM	5	447.507	448.345	.838	FLOOR BEAM	15	443.477	445.516	2.039
FLOOR BEAM	6	446.921	447.765	.844	FLOOR BEAM	16	443.181	445.610	2.429
SPLICE	3	446.796	447.642	.846	SPLICE	7	443.118	445.629	2.511
FLOOR BEAM	7	446.450	447.301	.851	FLOOR BEAM	17	442.970	445.847	2.877
FLOOR BEAM	8	446.012	446.869	.857	FLOOR BEAM	18	442.781	446.124	3.343
SPLICE	4	445.666	446.528	.862	FLOOR BEAM	19	442.621	446.360	3.739
FLOOR BEAM	9	445.576	446.468	.892	CL. BRG.		442.615	446.368	3.753
FLOOR BEAM	10	445.155	446.184	1.029					

Note:

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch

BILL OF MATERIAL		
*Structural Steel	Lbs.	710,840

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 17,590 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS A1 THRU A4

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 183 OF 526

DESIGNED BY R. M. R.
DRAWN BY I. M.
CHECKED BY A. J. C.
APPROVED BY [illegible]

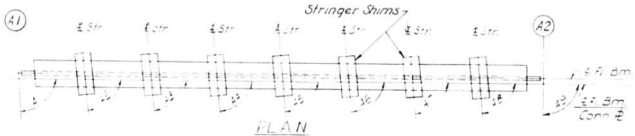
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E(4)	ST. CLAIR	247	54
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

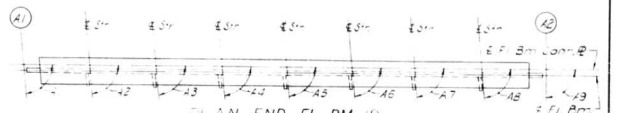
STR. #	L	S1	S2	S3	S4	B1	B2
1	56'-5 3/8"	18'-6 7/16"	○	21'-2 7/16"	16'-8 7/16"	88.59.51"	91.00.09"
2	56 5 5/16	18 6 7/16		21 2 7/16	16 8 7/16	89.08.26	90.51.34
3	56 5 5/16	18 6 7/16		21 2 7/16	16 8 7/16	89.17.02	90.42.58
4	56 5 1/4	18 6 7/16		21 2 7/16	16 8 7/16	89.25.37	90.34.23
5	56 5 1/4	18 6 7/16		21 2 7/16	16 8 3/8	89.34.13	90.25.47
6	56 5 1/4	18 6 7/16	○	21 2 3/8	16 8 3/8	89.42.49	90.17.11
7	56 5 1/4	18 6 7/16	○	21 2 3/8	16 8 3/8	89.51.24	90.08.36
8	51 4 7/8	4 6	21 2 7/16	... 7/16	4 6	88.59.51	91.00.09
9	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	89.08.26	90.51.34
10	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	89.17.02	90.42.58
11	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.25.37	90.34.23
12	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.34.13	90.25.47
13	51 4 13/16	4 6	21 2 3/8	21 2 3/8	4 6	89.42.49	90.17.11
14	51 4 13/16	4 6	21 2 3/8	21 2 3/8	4 6	89.51.24	90.08.36
15	54 7 5/16	16 8 7/16	21 2 7/16	○	16 8 7/16	88.59.51	91.00.09
16	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.08.26	90.51.34
17	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.17.02	90.42.58
18	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.25.37	90.34.23
19	54 7 3/16	16 8 3/8	21 2 7/16		16 8 3/8	89.34.13	90.25.47
20	54 7 3/16	16 8 3/8	21 2 3/8		16 8 3/8	89.42.49	90.17.11
21	54 7 3/16	16 8 3/8	21 2 3/8		16 8 3/8	89.51.24	90.08.36
22	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	88.59.51	91.00.09
23	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	89.08.26	90.51.34
24	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	89.17.02	90.42.58
25	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.25.37	90.34.23
26	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.34.13	90.25.47
27	51 4 13/16	4 6	21 2 3/8	21 2 3/8	4 6	89.42.49	90.17.11
28	51 4 13/16	4 6	21 2 3/8	21 2 3/8	4 6	89.51.24	90.08.36
29	54 7 5/16	16 8 7/16	21 2 7/16	○	16 8 7/16	88.59.51	91.00.09
30	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.08.26	90.51.34
31	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.17.02	90.42.58
32	54 7 1/4	16 8 7/16	21 2 7/16		16 8 7/16	89.25.37	90.34.23
33	54 7 3/16	16 8 3/8	21 2 7/16		16 8 3/8	89.34.13	90.25.47
34	54 7 3/16	16 8 3/8	21 2 3/8		16 8 3/8	89.42.49	90.17.11
35	54 7 3/16	16 8 3/8	21 2 3/8	○	16 8 3/8	89.51.24	90.08.36
36	51 5	4 6	21 2 1/2	21 2 1/2	4 6	88.27.39	91.32.21
37	51 4 15/16	4 6	21 2 7/16	21 2 7/16	4 6	88.40.50	91.19.10
38	51 4 15/16	4 6	21 2 7/16	21 2 7/16	4 6	88.54.02	91.05.58
39	51 4 7/8	4 6	21 2 7/16	21 2 7/16	4 6	89.07.13	90.52.47
40	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.20.25	90.39.35
41	51 4 13/16	4 6	21 2 7/16	21 2 7/16	4 6	89.33.37	90.26.23
42	51 4 13/16	4 6	21 2 3/8	21 2 3/8	4 6	89.46.48	90.13.12
43	56 1 1/16	16 8 13/16	21 2 15/16	○	18 1 1/4	86.15.08	93.44.52
44	56 11/16	16 8 11/16	21 2 13/16		18 1 1/8	86.47.11	93.12.49
45	56 5/16	16 8 5/8	21 2 11/16		18 1	87.19.16	92.40.44
46	56 1/16	16 8 9/16	21 2 9/16		18 15/16	87.51.23	92.08.37
47	55 11 7/8	16 8 1/2	21 2 1/2		18 7/8	88.23.31	91.36.29
48	55 11 11/16	16 8 7/16	21 2 7/16		18 13/16	88.55.40	91.04.20
49	55 11 5/8	16 8 7/16	21 2 7/16	○	18 13/16	89.27.50	90.32.10

FLOOR BEAM DIMENSIONS

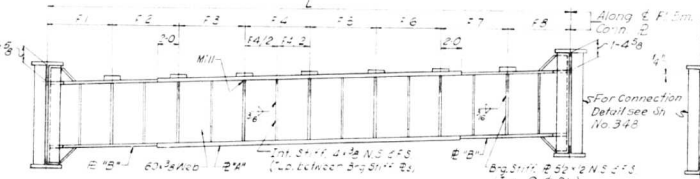
FL Bm	L	F1	F2	F3	F4	F5	F6	F7	F8	A1	A2	A3	A4	A5	A6	A7	A8	A9	PLATE A T.C.B.	PLATE B T.C.B.
1	52'- 1/2"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	6'-6 1/16"	88.51.15"	88.59.51"	89.08.26"	89.17.02"	89.25.37"	89.34.13"	89.42.49"	89.51.24"	90.00.00"	12 x 1/4	12 x 3/4
2	52 4 15/16	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1/8	12 x 1
3	52 10 1/16	6 7 1/4	6 7 1/4	6 7 1/4	6 7 1/4	6 7 1/4	6 7 1/4	6 7 1/4	6 7 1/4	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1/8	12 x 1
4	53 3 1/8	6 7 7/8	6 7 7/8	6 7 7/8	6 7 7/8	6 7 7/8	6 7 7/8	6 7 7/8	6 7 7/8	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/4	12 x 1 1/8
5	53 8 3/16	6 8 1/2	6 8 1/2	6 8 1/2	6 8 1/2	6 8 1/2	6 8 1/2	6 8 1/2	6 8 1/2	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/4	12 x 1 1/8
6	54 1 5/16	6 9 3/16	6 9 3/16	6 9 3/16	6 9 3/16	6 9 3/16	6 9 3/16	6 9 3/16	6 9 3/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/4	2 x 1 1/8
7	54 6 3/8	6 9 13/16	6 9 13/16	6 9 13/16	6 9 13/16	6 9 13/16	6 9 13/16	6 9 13/16	6 9 13/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	2 x 1 3/4	2 x 1 1/8
8	54 11 1/2	6 10 7/16	6 10 7/16	6 10 7/16	6 10 7/16	6 10 7/16	6 10 7/16	6 10 7/16	6 10 7/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	2 x 1 3/4	2 x 1 1/8
9	55 4 9/16	6 11 1/16	6 11 1/16	6 11 1/16	6 11 1/16	6 11 1/16	6 11 1/16	6 11 1/16	6 11 1/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/4	12 x 1 1/4
10	55 9 5/8	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/8	12 x 1 1/4
11	56 2 3/4	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	12 x 1 3/8	12 x 1 1/4
12	56 7 13/16	7 1	7 1	7 1	7 1	7 1	7 1	7 1	7 1	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	2 x 1 3/8	2 x 1 1/4
13	57 15/16	7 1 5/8	7 1 5/8	7 1 5/8	7 1 5/8	7 1 5/8	7 1 5/8	7 1 5/8	7 1 5/8	88.51.15	88.59.51	89.08.26	89.17.02	89.25.37	89.34.13	89.42.49	89.51.24	90.00.00	2 x 1 3/8	12 x 1 1/4
14	57 6	7 1 3/4	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	88.51.15	88.27.39	88.40.50	88.54.02	89.07.13	89.20.25	89.33.37	89.46.48	90.00.00	12 x 2	12 x 1 3/8
15	57 11 5/8	7 1/2	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	88.21.26	88.27.39	88.40.50	88.54.02	89.07.13	89.20.25	89.33.37	89.46.48	90.00.00	12 x 2	12 x 1 3/8
16	58 9 1/4	7 3 5/16	7 4 1/4	7 4 1/4	7 4 1/4	7 4 1/4	7 4 1/4	7 4 1/4	7 4 1/4	87.18.59	88.27.39	88.40.50	88.54.02	89.07.13	89.20.25	89.33.37	89.46.48	90.00.00	12 x 2	12 x 1 3/8
17	59 11 1/2	7 2 15/16	7 6 3/8	7 6 3/8	7 6 3/8	7 6 3/8	7 6 3/8	7 6 3/8	7 6 3/8	86.16.30	86.15.08	86.47.11	87.19.16	87.51.23	88.23.31	88.55.40	89.27.50	90.00.00	2 x 2 1/8	12 x 1 1/8
18	61 6 3/8	7 5 3/16	7 8 3/4	7 8 3/4	7 8 3/4	7 8 3/4	7 8 3/4	7 8 3/4	7 8 3/4	85.13.55	86.15.08	86.47.11	87.19.16	87.51.23	88.23.31	88.55.40	89.27.50	90.00.00	2 x 2 1/8	12 x 1 1/8
19	63 2 1/8	7 10 3/4	7 10 3/4	7 10 3/4	7 10 3/4	7 10 3/4	7 10 3/4	7 10 3/4	7 10 3/4	84.20.32	86.15.08	86.47.11	87.19.16	87.51.23	88.23.31	88.55.40	89.27.50	90.00.00	2 x 1 3/4	12 x 1 1/8



PLAN

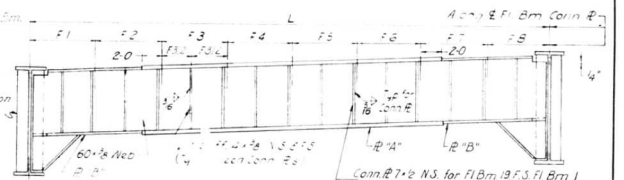


FLAN-END FL. BM. 19

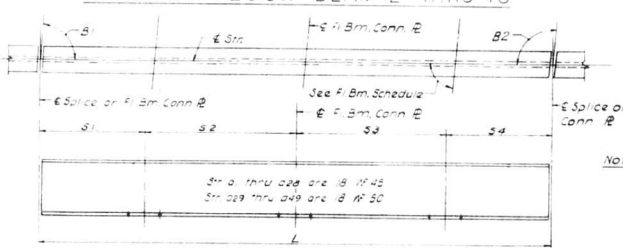


ELEVATION

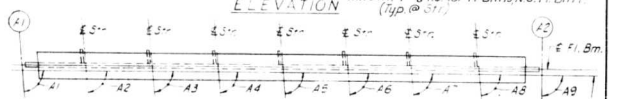
INTERIOR FLOOR BEAM 2 THRU 18



ELEVATION



TYPICAL STRINGER



PLAN END FL. BM. 1

END FLOOR BEAM 1 AND 19

Notes:

Length L of Stringers and Fl Bms is correct as given in the table, except the increment lengths are given to the nearest 16".
All dimensions are in the horizontal plane.
For Intermediate Stiffener, Brg. Stiffener and Connection Plate Details see Sh. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS A1 THRU A4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F A I RT 70 ST CLAIR CO SECTION 82-3HVF&E(4)
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS
SHEET 1 of 5 Sh.

DESIGNED BY A.T. & A.J.C.
DRAWN BY I.M.
CHECKED BY A.A.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE4	ST. CLAIR	247	33
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 2 THRU 3	T1	T2	T3	T4
STR. 1 THRU 7	1 1/8	1	1/2	3/8

FLOOR BEAM 4 THRU 6	T1	T2	T3	T4
STR. 8 THRU 14	1 1/8	1	1/2	3/8

FLOOR BEAM 7 THRU 8	T1	T2	T3	T4
STR 15 THRU 21	1 1/16	15/16	9/16	7/16

FLOOR BEAM 9	T1	T2	T3	T4
STR.				
22	1	7/8	5/8	1/2
23	1	7/8	5/8	1/2
24	1	7/8	5/8	1/2
25	1	7/8	5/8	1/2
26	1	7/8	5/8	1/2
27	1	7/8	5/8	1/2
28	15/16	7/8	5/8	9/16

FLOOR BEAM 10	T1	T2	T3	T4
STR.				
22	1	7/8	5/8	1/2
23	1	7/8	5/8	1/2
24	1	7/8	5/8	1/2
25	1	7/8	5/8	1/2
26	1	7/8	5/8	1/2
27	1	7/8	5/8	1/2
28	1	13/16	11/16	1/2

FLOOR BEAM 11	T1	T2	T3	T4
STR.				
22	1 1/16	7/8	5/8	7/16
23	1	7/8	5/8	1/2
24	1	7/8	5/8	1/2
25	1	7/8	5/8	1/2
26	1	7/8	5/8	1/2
27	1	13/16	11/16	1/2
28	1	13/16	11/16	1/2

FLOOR BEAM 12	T1	T2	T3	T4
STR.				
29	1	13/16	11/16	1/2
30	1	13/16	11/16	1/2
31	1	13/16	11/16	1/2
32	15/16	13/16	11/16	9/16
33	15/16	3/4	3/4	9/16
34	15/16	3/4	3/4	9/16
35	15/16	3/4	3/4	9/16

FLOOR BEAM 13	T1	T2	T3	T4
STR.				
29	1	13/16	11/16	1/2
30	1	13/16	11/16	1/2
31	1	13/16	11/16	1/2
32	1	3/4	3/4	1/2
33	15/16	3/4	3/4	9/16
34	15/16	3/4	3/4	9/16
35	15/16	3/4	3/4	9/16

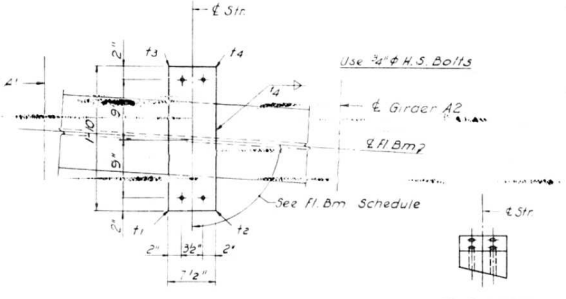
FLOOR BEAM 14	T1	T2	T3	T4
STR.				
36	1	3/4	3/4	1/2
37	15/16	3/4	3/4	9/16
38	15/16	3/4	3/4	9/16
39	15/16	11/16	13/16	9/16
40	7/8	11/16	13/16	5/8
41	7/8	5/8	7/8	5/8
42	13/16	5/8	7/8	11/16

FLOOR BEAM 15	T1	T2	T3	T4
STR.				
36	1	3/4	3/4	1/2
37	1	3/4	3/4	1/2
38	15/16	11/16	13/16	9/16
39	15/16	11/16	13/16	9/16
40	15/16	5/8	7/8	9/16
41	7/8	5/8	7/8	5/8
42	7/8	5/8	7/8	5/8

FLOOR BEAM 16	T1	T2	T3	T4
STR.				
36	1 1/16	3/4	3/4	7/16
37	1	11/16	13/16	1/2
38	1	11/16	13/16	1/2
39	15/16	5/8	7/8	9/16
40	15/16	5/8	7/8	9/16
41	15/16	5/8	7/8	9/16
42	7/8	9/16	15/16	5/8

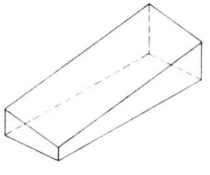
FLOOR BEAM 17	T1	T2	T3	T4
STR.				
43	1	5/8	7/8	1/2
44	15/16	5/8	7/8	9/16
45	15/16	9/16	15/16	9/16
46	15/16	9/16	15/16	9/16
47	7/8	1/2	1	5/8
48	7/8	1/2	1	5/8
49	13/16	7/16	1 1/16	11/16

FLOOR BEAM 18	T1	T2	T3	T4
STR.				
43	1	5/8	7/8	1/2
44	1	9/16	15/16	1/2
45	15/16	9/16	15/16	9/16
46	15/16	1/2	1	9/16
47	7/8	1/2	1	5/8
48	7/8	7/16	1 1/16	5/8
49	13/16	7/16	1 1/16	11/16

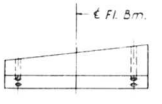


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t_1, t_2, t_3 & t_4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C.
DRAWN BY I.M.
CHECKED BY A.S.
APPROVED BY A.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A1 THRU A4

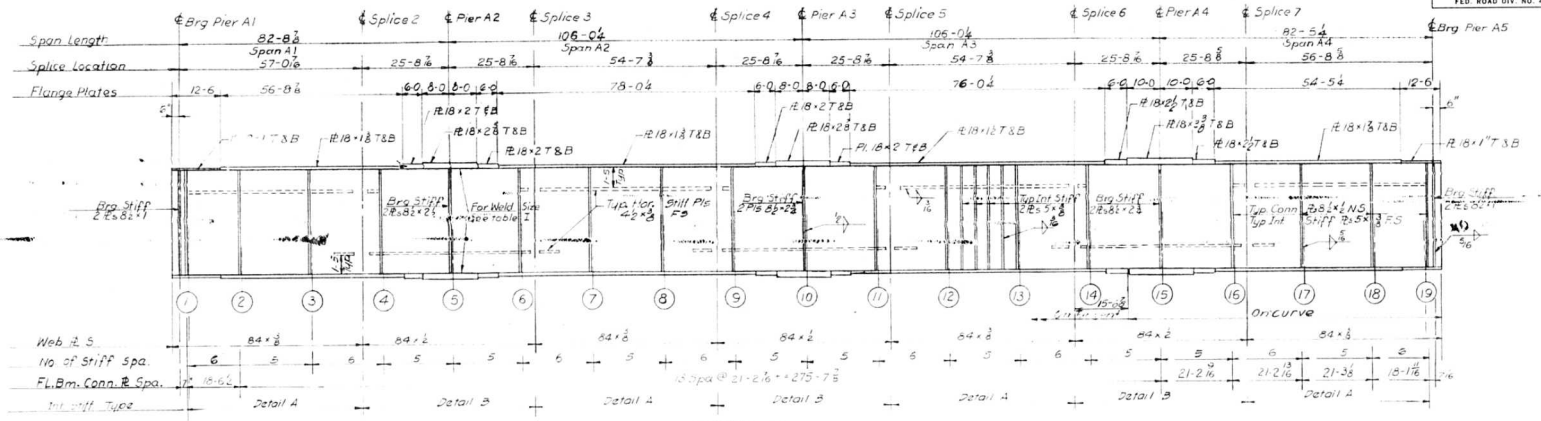
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE4

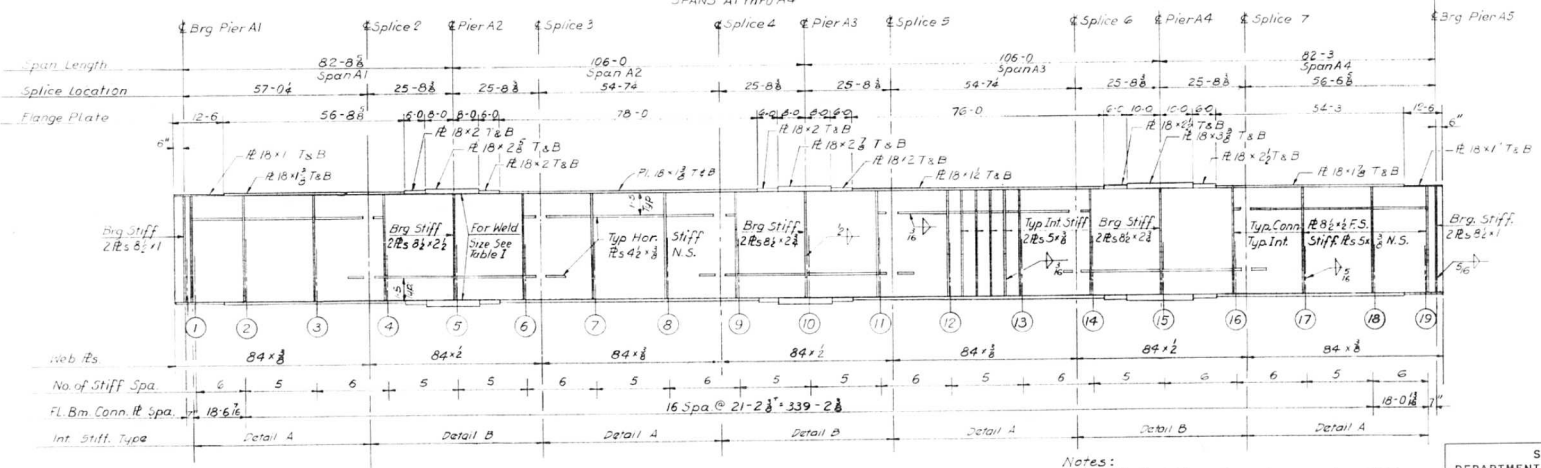
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 185 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	56
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
SPANS A1 thru A4



GIRDER A2
SPANS A1 thru A4

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 183.
All Bearing Stiffeners and Connection Plates to be Vertical.
For Splice Stiffeners, Connection Plate Details and Table I see Sheet No. 348, 349, 350

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS A1 AND A2
SPANS A1 THRU A4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

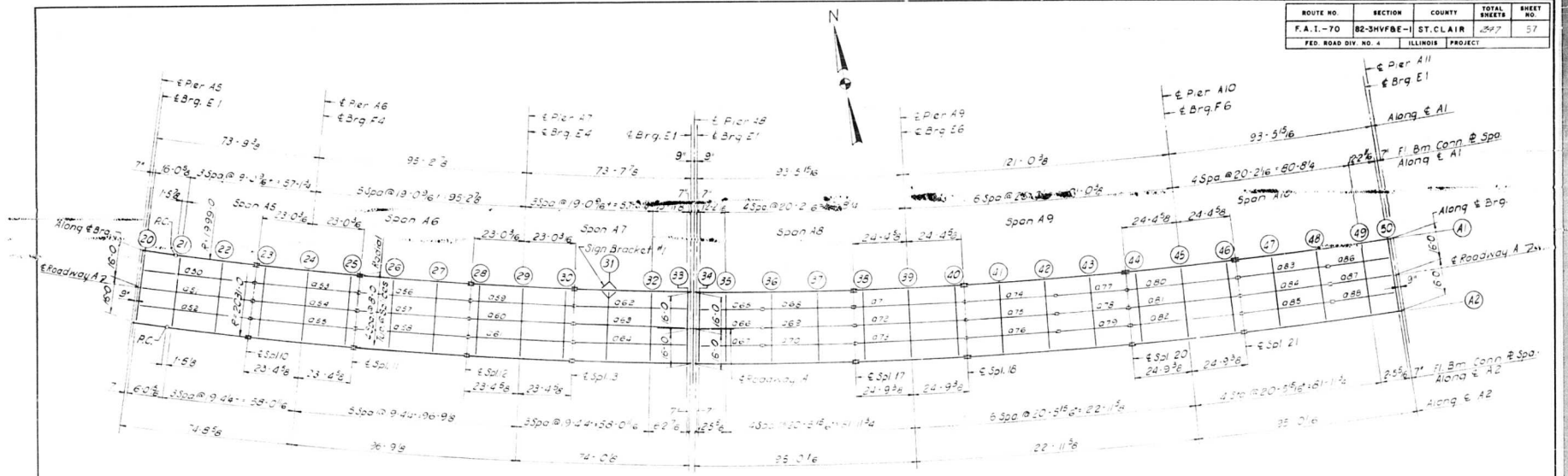
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 186 OF 236

DESIGNED BY A.T.
DRAWN BY D.T.
CHECKED BY E.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	57
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS A5 THRU A10

ELEVATION TOP OF GIRDER WEB

	GIR. A1	GIR. A2	DIFF.
CL. BRG.	444.714	446.385	1.671
FLOOR BEAM 20	444.714	446.392	1.678
FLOOR BEAM 21	444.687	446.579	1.892
FLOOR BEAM 22	444.655	446.803	2.148
SPLICE 10	444.629	446.981	2.352
FLOOR BEAM 23	444.640	447.010	2.370
FLOOR BEAM 24	444.693	447.149	2.456
FLOOR BEAM 25	444.746	447.288	2.542
SPLICE 11	444.757	447.317	2.560
FLOOR BEAM 26	444.833	447.393	2.560
FLOOR BEAM 27	444.929	447.489	2.560
SPLICE 12	445.005	447.565	2.560
FLOOR BEAM 28	445.025	447.585	2.560
FLOOR BEAM 29	445.121	447.681	2.560
FLOOR BEAM 30	445.217	447.777	2.560
SPLICE 13	445.237	447.797	2.560
FLOOR BEAM 31	445.313	447.873	2.560
FLOOR BEAM 32	445.409	447.969	2.560
FLOOR BEAM 33	445.490	448.050	2.560
CL. BRG.	445.492	448.052	2.560

	GIR. A1	GIR. A2	DIFF.
CL. BRG.	445.500	448.060	2.560
FLOOR BEAM 34	445.503	448.063	2.560
FLOOR BEAM 35	445.565	448.125	2.560
FLOOR BEAM 36	445.666	448.226	2.560
FLOOR BEAM 37	445.768	448.328	2.560
SPLICE 17	445.848	448.408	2.560
FLOOR BEAM 38	445.870	448.430	2.560
FLOOR BEAM 39	445.971	448.531	2.560
FLOOR BEAM 40	446.073	448.633	2.560
SPLICE 18	446.094	448.654	2.560
FLOOR BEAM 41	446.175	448.735	2.560
FLOOR BEAM 42	446.276	448.836	2.560
FLOOR BEAM 43	446.378	448.938	2.560
SPLICE 20	446.458	449.018	2.560
FLOOR BEAM 44	446.480	449.040	2.560
FLOOR BEAM 45	446.581	449.141	2.560
FLOOR BEAM 46	446.683	449.243	2.560
SPLICE 21	446.704	449.264	2.560
FLOOR BEAM 47	446.785	449.345	2.560
FLOOR BEAM 48	446.886	449.446	2.560
FLOOR BEAM 49	446.988	449.548	2.560
FLOOR BEAM 50	447.050	449.610	2.560
CL. BRG.	447.052	449.612	2.560

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183
For Sign Bracket Detail see St. No. 3[illegible]

BILL OF MATERIAL		
*Structural Steel	Lbs.	659,790

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 14,720 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS A5 THRU A10
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT.70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 187 of 526

DESIGNED BY R.J.R.
DRAWN BY I.M.
CHECKED BY A.J.C.
APPROVED BY K.A.

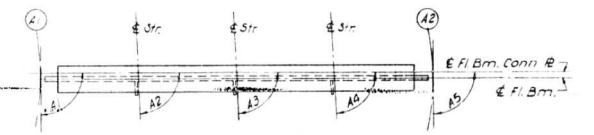
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF&E	ST. CLAIR	247	58
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

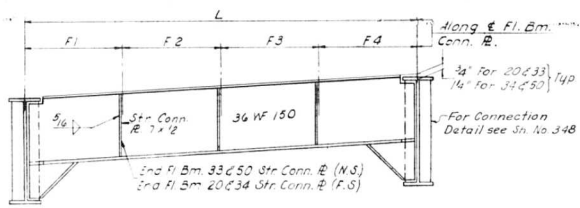
STRG	L	S1	S2	S3	S4	B1	B2
50	50' 3 7/8	16' 3/4		19 1 1/2'	15' 1 11/16'	89°38.14"	89°20.31"
51	50 5 9/16	16 13/16		19 2 3/8	15 2 3/8	89.38.13	89.20.32
52	50 7 5/16	16 7/8		19 3 5/16	15 3 1/8	89.38.11	89.20.34
53	46 2 9/16	3 11 13/16	19 1 1/2	19 1 1/2	3 11 13/16	89.20.25	89.20.25
54	46 4 13/16	4	19 2 3/8	19 2 3/8	4	89.20.25	89.20.25
55	46 7	4 3/16	19 3 5/16	19 3 5/16	4 3/16	89.20.25	89.20.25
56	49 4 13/16	15 1 11/16	19 1 1/2		15 1 11/16	89.17.41	89.17.41
57	49 7 [illegible]	[illegible] 3/8	19 2 3/8		15 2 3/8	89.17.41	89.17.41
58	49 9 9/16	15 3 1/8	19 3 5/16		15 3 1/8	89.17.41	89.17.41
59	46 2 9/16	3 11 13/16	19 1 1/2	19 1 1/2	3 11 13/16	89.20.25	89.20.25
60	46 4 13/16	4	19 2 3/8	19 2 3/8	4	89.20.25	89.20.25
61	46 7	4 3/16	19 3 5/16	19 3 5/16	4 3/16	89.20.25	89.20.25
62	50 3 1/8	15 1 11/16	19 1 1/2	15 11 15/16		89.16.57	89.14.40
63	50 5 9/16	15 2 3/8	19 2 3/8	16 13/16		89.16.57	89.14.41
64	50 8 1/16	15 3 1/8	19 3 5/16	16 1 5/8		89.16.57	89.14.41
65	28 3 9/16		12 3 5/16		16 1/4	89.33.29	89.35.46
66	28 5		12 4		16 1	89.33.29	89.35.45
67	28 6 7/16		12 4 5/8		16 1 3/4	89.33.29	89.35.45
68	40 6 1/16	4 2 13/16	20 3		16 1/4	89.25.19	89.25.18
69	40 8	4 3	20 4		16 1	89.25.19	89.25.18
70	40 9 15/16	4 3 3/16	20 4 15/16		16 1 3/4	89.25.19	89.25.19
71	48 11 5/8	4 2 13/16	20 3	20 3	4 2 13/16	89.18.04	89.18.03
72	49 2	4 3	20 4	20 4	4 3	89.18.04	89.18.03
73	49 4 5/16	4 3 3/16	20 4 15/16	20 4 15/16	4 3 3/16	89.18.04	89.18.03
74	40 6 1/16	16 1/4	20 3		4 2 13/16	89.25.19	89.25.18
75	40 8	16 1	20 4		4 3	89.25.19	89.25.18
76	40 9 15/16	16 1 3/4	20 4 15/16		4 3 3/16	89.25.19	89.25.19
77	32 7/16	16 1/4			16 1/4	89.32.34	89.32.33
78	32 2	16 1			16 1	89.32.34	89.32.34
79	32 3 1/2	16 1 3/4			16 1 3/4	89.32.34	89.32.34
80	48 11 5/8	4 2 13/16	20 3	20 3	4 2 13/16	89.18.04	89.18.03
81	49 2	4 3	20 4	20 4	4 3	89.18.04	89.18.03
82	49 4 5/16	4 3 3/16	20 4 15/16	20 4 15/16	4 3 3/16	89.18.04	89.18.03
83	40 6 1/16	16 1/4	20 3		4 2 13/16	89.25.19	89.25.19
84	40 8	16 1	20 4		4 3	89.25.19	89.25.19
85	40 9 15/16	16 1 3/4	20 4 15/16		4 3 3/16	89.25.19	89.25.19
86	28 3 9/16	16 1/4			12 3 5/16	89.35.46	89.33.29
87	28 5	16 1			12 4	89.35.46	89.33.29
88	28 6 7/16	16 1 3/4			12 4 5/8	89.35.46	89.33.29

FLOOR BEAM DIMENSIONS

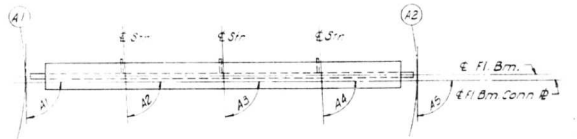
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
20	32' - 0"	8' - 0"	8' - 0"	8' - 0"	8' - 0"	90°00'00"	89°38.14"	89°38.13"	89°38.11"	90.00.00"
21	32	7 10 13/16	8	8	8 1 3/16	90.00.00	89.40.48	89.40.47	89.40.45	90.00.00
22	32	7 10 5/8	8	8	8 1 7/16	90.00.00	90.13.33	90.13.32	90.13.30	90.00.00
23	32	7 11 1/2	8	8	8 1/2	90.00.00	89.27.15	89.27.15	89.27.15	90.00.00
24	32	7 10 3/8	8	8	8 1 5/8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
25	32	7 11 1/2	8	8	8 1/2	90.00.00	90.32.45	90.32.45	90.32.45	90.00.00
26	32	7 10 7/16	8	8	8 1 9/16	90.00.00	89.43.37	89.43.37	89.43.37	90.00.00
27	32	7 10 7/16	8	8	8 1 9/16	90.00.00	90.16.23	90.16.23	90.16.23	90.00.00
28	32	7 11 1/2	8	8	8 1/2	90.00.00	89.27.15	89.27.15	89.27.15	90.00.00
29	32	7 10 3/8	8	8	8 1 5/8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
30	32	7 11 1/2	8	8	8 1/2	90.00.00	90.32.45	90.32.45	90.32.45	90.00.00
31	32	7 10 7/16	8	8	8 1 5/8	90.00.00	89.42.53	89.42.53	89.42.53	90.00.00
32	32	7 10 3/8	8	8	8 1 5/8	90.00.00	90.15.38	90.15.38	90.15.38	90.00.00
33	32	8	8	8	8	90.02.18	90.45.20	90.45.19	90.45.19	90.02.16
34	32	8	8	8	8	89.57.43	89.33.29	89.33.29	89.33.29	89.57.44
35	32	7 11 7/16	8	8	8 5/8	90.00.00	89.56.48	89.56.48	89.56.48	90.00.00
36	32	7 11 9/16	8	8	8 7/16	90.00.00	89.32.34	89.32.34	89.32.34	90.00.00
37	32	7 10 13/16	8	8	8 1 3/16	90.00.00	90.07.15	90.07.15	90.07.15	90.00.00
38	32	7 11 7/16	8	8	8 9/16	90.00.00	89.25.19	89.25.19	89.25.19	90.00.00
39	32	7 10 3/16	8	8	8 1 13/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
40	32	7 11 7/16	8	8	8 9/16	90.00.00	90.34.42	90.34.42	90.34.41	90.00.00
41	32	7 10 13/16	8	8	8 1 3/16	90.00.00	89.52.45	89.52.45	89.52.45	90.00.00
42	32	7 11 9/16	8	8	8 7/16	90.00.00	90.27.27	90.27.26	90.27.26	90.00.00
43	32	7 11 1/4	8	8	8 3/4	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
44	32	7 11 7/16	8	8	8 9/16	90.00.00	89.25.19	89.25.19	89.25.19	90.00.00
45	32	7 10 3/16	8	8	8 1 13/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
46	32	7 11 7/16	8	8	8 9/16	90.00.00	90.34.42	90.34.42	90.34.41	90.00.00
47	32	7 10 13/16	8	8	8 1 3/16	90.00.00	89.52.45	89.52.45	89.52.45	90.00.00
48	32	7 11 9/16	8	8	8 7/16	90.00.00	90.27.26	90.27.26	90.27.26	90.00.00
49	32	7 11 7/16	8	8	8 9/16	90.00.00	90.03.12	90.03.12	90.03.12	90.00.00
50	32	8	8	8	8	90.02.18	90.26.31	90.26.31	90.26.31	90.02.16



PLAN END FL. BM. 33 AND 50

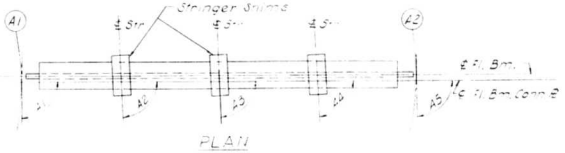


ELEVATION

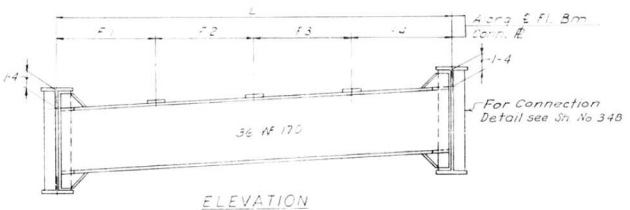


PLAN END FL BM 20 AND 34

END FLOOR BEAM 20, 33, 34 AND 50

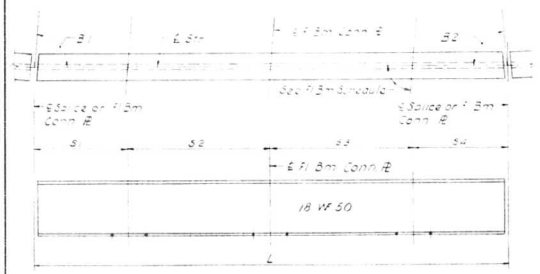


PLAN



ELEVATION

INTERIOR FLOOR BEAM 21 THRU 32 AND 35 THRU 49



TYPICAL STRINGER

Notes:
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 1/16
All dimensions are in the horizontal plane.
For Connection Plate Details see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS A5 THRU A10
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F.A.I RT.70 ST. CLAIR CO. SECTION 82-3HVF&E

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 188 of 526

DESIGNED BY A.T., E.A.J.C.
DRAWN BY L.M.
CHECKED BY R.B.
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVFBE-1	ST. CLAIR	247	59
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 21	T1	T2	T3	T4
STR.				
50	15/16	1/2	1	9/16
51	15/16	1/2	1	9/16
52	7/8	7/16	1 1/16	5/8

FLOOR BEAM 22	T1	T2	T3	T4
STR.				
50	1	1/2	1	1/2
51	15/16	7/16	1 1/16	9/16
52	15/16	7/16	1 1/16	9/16

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
53	1	7/16	1 1/16	1/2
54	1	7/16	1 1/16	1/2
55	15/16	3/8	1 1/8	9/16

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
53	1	7/16	1 1/16	1/2
54	1	7/16	1 1/16	1/2
55	1	3/8	1 1/8	1/2

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
53	1	7/16	1 1/16	1/2
54	1	3/8	1 1/8	1/2
55	1	7/8	1 1/8	1/2

FLOOR BEAM 27 THRU 27	T1	T2	T3	T4
STR. 56 THRU 58	1	3/8	1 1/8	1/2

FLOOR BEAM 28 THRU 30	T1	T2	T3	T4
STR. 59 THRU 61	1	3/8	1 1/8	1/2

FLOOR BEAM 31 THRU 32	T1	T2	T3	T4
STR. 62 THRU 64	1	3/8	1 1/8	1/2

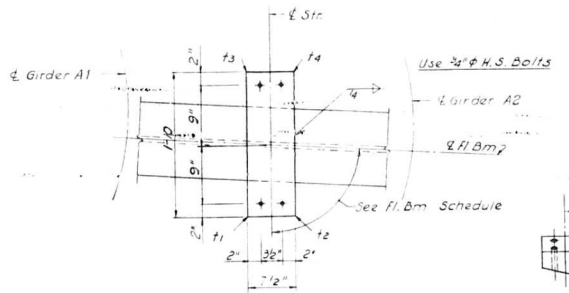
FLOOR BEAM 35 THRU 37	T1	T2	T3	T4
STR. 65 THRU 70	1	3/8	1 1/8	1/2

FLOOR BEAM 38 THRU 40	T1	T2	T3	T4
STR. 71 THRU 73	1	3/8	1 1/8	1/2

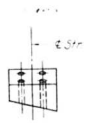
FLOOR BEAM 41 THRU 43	T1	T2	T3	T4
STR. 74 THRU 79	1	3/8	1 1/8	1/2

FLOOR BEAM 44 THRU 46	T1	T2	T3	T4
STR. 80 THRU 82	1	3/8	1 1/8	1/2

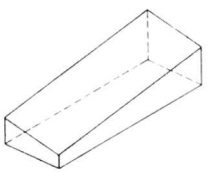
FLOOR BEAM 47 THRU 49	T1	T2	T3	T4
STR. 83 THRU 88	1	3/8	1 1/8	1/2



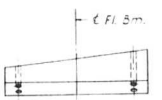
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A5 THRU A10

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

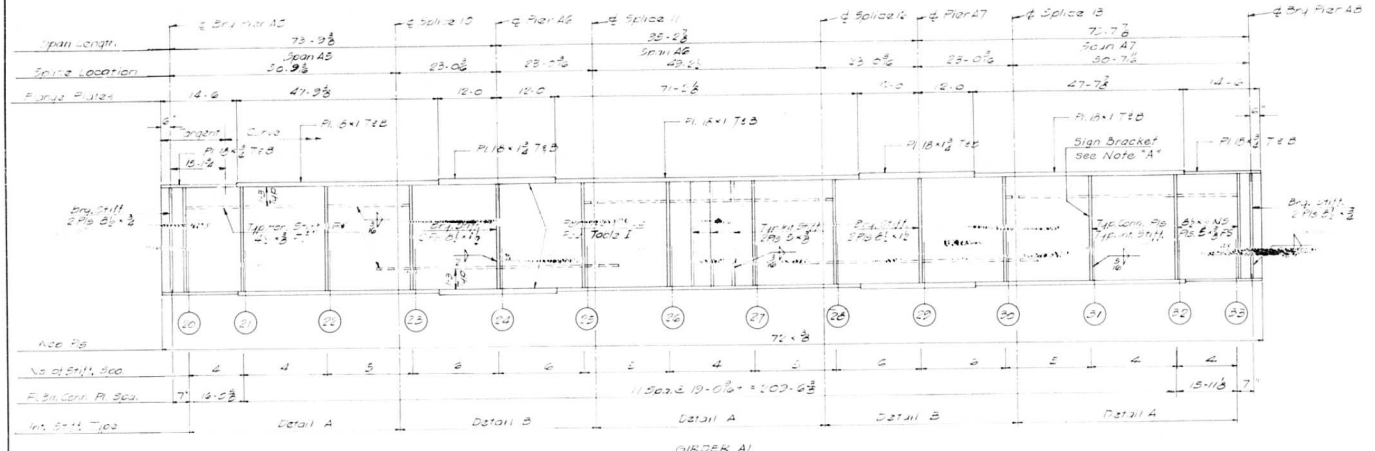
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 89 OF 526

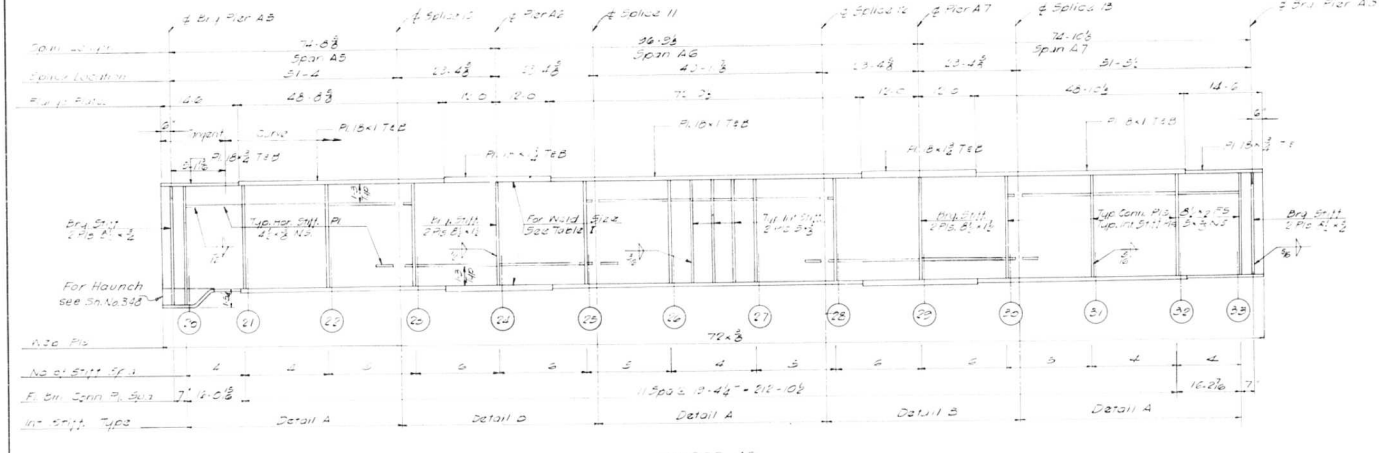
DESIGNED BY A.J.C.
DRAWN BY I.M.
CHECKED BY A.S.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	60
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
Spans A5 thru A7

Note "A"
Intermediate Stiffeners should be moved if necessary to clear sign bracket connection plates



GIRDER A2
Spans A5 thru A7

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 187.
All Bearing Stiffeners and Connection Plates to be vertical
For Splice, Stiffener, Connection Plate Details and Table I See Sheet No. 348, 349, 350.
For Sign Bracket Detail see Sheet No. 360

DESIGNED BY A. J.
DRAWN BY V. P.
CHECKED BY E. L.
APPROVED BY A. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

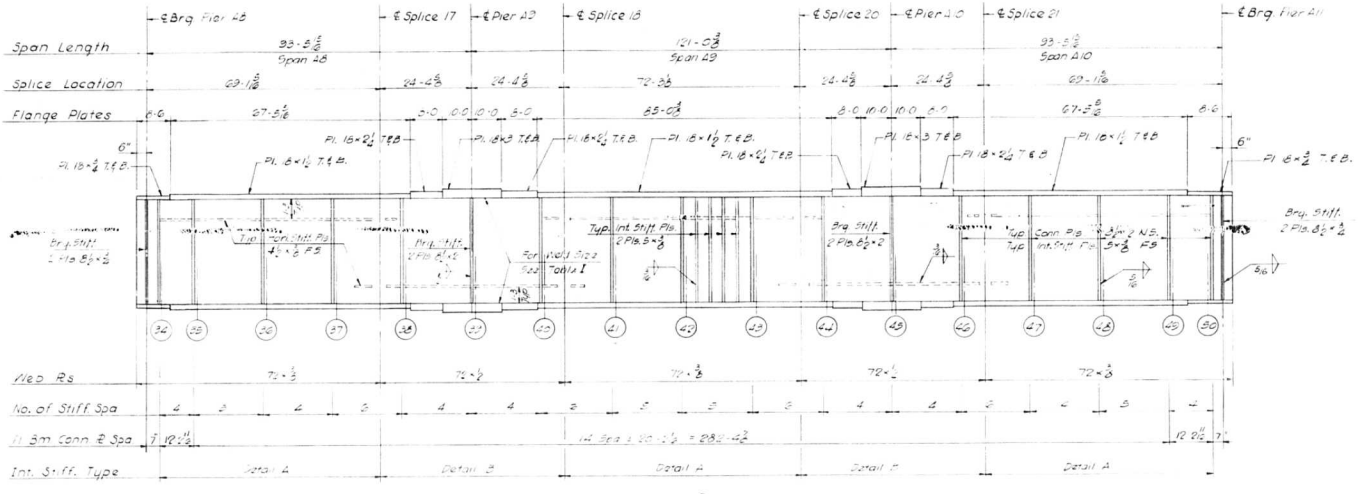
GIRDERS A1 AND A2
SPANS A5 THRU A7
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

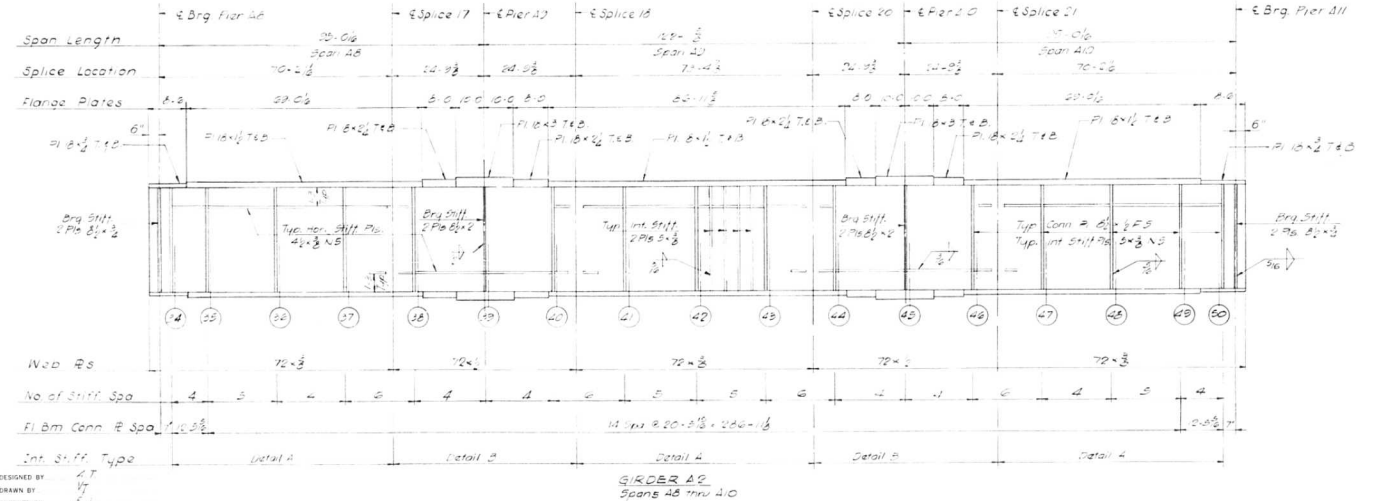
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
190 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	61
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
Spans A8 thru A10



GIRDER A2
Spans A8 thru A10

DESIGNED BY A.T.
DRAWN BY V.T.
CHECKED BY E.L.
APPROVED BY A.A.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web See Sheet No. 187.
All Bearing Stiffeners and Connection Plates to be Vertical
For Splice, Stiffener Connection Plate Details and Table I see Sheet No. 348, 349, 350

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

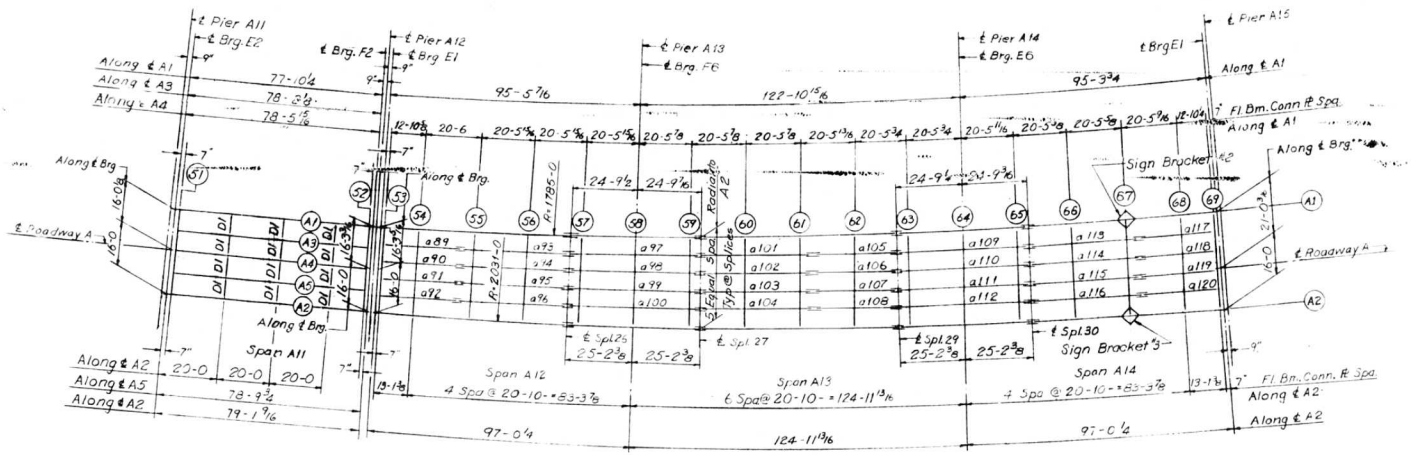
GIRDERS A1 AND A2
SPANS A8 THRU A10
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 191 of 520

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	82
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS A11 THRU A14

ELEVATION TOP OF FLANGE

	STR A1	STR A2	DIFF.
CL. BRG.	447.668	449.849	2.561
FLOOR BEAM 51	447.671	449.836	2.561
FLOOR BEAM 52	447.637	449.218	2.581
CL. BRG.	447.640	449.221	2.581

ELEVATION TOP OF GIRDER WEB

	GIR A1	GIR A2	DIFF
CL. BRG.	447.438	450.020	2.582
FLOOR BEAM 53	447.440	450.023	2.583
FLOOR BEAM 54	447.497	450.088	2.591
FLOOR BEAM 55	447.588	450.191	2.603
FLOOR BEAM 56	447.678	450.295	2.617
SPLICE 26	447.750	450.376	2.626
FLOOR BEAM 57	447.767	450.398	2.631
FLOOR BEAM 58	447.852	450.501	2.649
FLOOR BEAM 59	447.936	450.605	2.669
SPLICE 27	447.954	450.626	2.672
FLOOR BEAM 60	448.016	450.708	2.692
FLOOR BEAM 61	448.095	450.811	2.716
FLOOR BEAM 62	448.173	450.915	2.742

	GIR A1	GIR A2	DIFF.
SPLICE 29	448.235	450.996	2.761
FLOOR BEAM 63	448.251	451.018	2.767
FLOOR BEAM 64	448.323	451.121	2.798
FLOOR BEAM 65	448.396	451.225	2.829
SPLICE 30	448.411	451.246	2.835
FLOOR BEAM 66	448.464	451.328	2.864
FLOOR BEAM 67	448.531	451.431	2.900
FLOOR BEAM 68	448.597	451.535	2.938
FLOOR BEAM 69	448.639	451.600	2.961
CL. BRG.	448.641	451.602	2.961

Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see sketch Sheet No. 183 For Sign Bracket Detail see Sh. No. 340.

BILL OF MATERIAL		
*Structural Steel	Lbs.	556,890

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,270 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS A11 THRU A14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

N. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 192 OF 526

DESIGNED BY R. T. R.
DRAWN BY D.C.H.
CHECKED BY
APPROVED BY A. A.

Rev. Str. Steel from 558,940" to 556,890" 6-3-66 N.R.F.

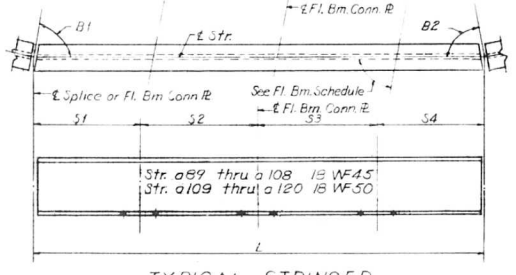
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	63
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

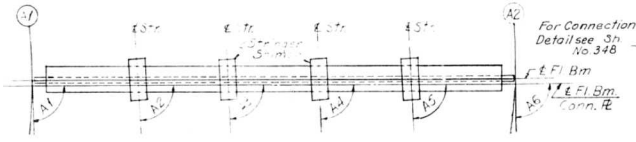
STR#	L	S1	S2	S3	S4	B1	B2
89	29-2 3/16"	12-11 1/8"			16-3 1/16"	89.14.27'	89.53.14'
90	29 3 3/8	12 11 11/16			16 3 11/16	89.19.03	89.48.37
91	29 4 9/16	13 1/4			16 4 5/16	89.23.38	89.44.02
92	29 5 3/4	13 13/16			16 4 15/16	89.28.11	89.39.29
93	41 1 1/2	4 3 3/4	20 6 3/4		16 3	89.00.44	89.48.45
94	41 3 1/8	4 3 15/16	20 7 9/16		16 3 5/8	89.06.48	89.42.41
95	41 4 11/16	4 4 1/16	20 8 3/8		4 1/4	89.12.49	89.36.40
96	41 6 5/16	4 4 1/4	20 9 3/16		16 4 15/16	89.18.48	89.30.41
97	41 8 7/8	4 4 3/4	20 9 3/4		4 3 3/4	89.25.55	89.48.46
98	49 10 1/8	4 3 15/16	20 7 9/16	20 7 1/2	4 3 7/8	88.53.51	89.40.50
99	50 13/16	4 4 1/16	20 8 5/16	20 8 5/16	4 4 1/16	89.01.44	89.32.57
100	50 2 3/4	4 4 1/4	20 9 1/8	20 9 1/8	4 4 1/4	89.09.34	89.25.08
101	41 1 5/16	16 3	20 6 5/8		4 3 11/16	88.45.55	90.03.34
102	41 3	16 3 5/8	20 7 1/2		4 3 7/8	88.55.43	89.53.46
103	41 4 5/8	16 4 1/4	20 8 5/16		4 4 1/16	89.05.27	89.44.02
104	41 6 1/4	16 4 15/16	20 9 1/8		4 4 1/4	89.15.08	89.34.21
105	32 5 13/16	16 2 15/16			16 2 7/8	88.47.19	90.16.57
106	32 7 1/8	16 3 9/16			16 3 9/16	88.58.38	90.05.38
107	32 8 7/16	16 4 1/4			16 4 3/16	89.09.53	89.54.23
108	32 9 3/4	16 4 7/8			16 4 7/8	89.21.03	89.43.13
109	49 8 1/2	4 3 11/16	20 6 9/16	20 6 1/2	4 3 11/16	88.25.52	90.08.49
110	49 10 9/16	4 3 7/8	20 7 7/16	20 7 3/8	4 3 7/8	88.38.52	89.55.49
111	50 5/8	4 4 1/16	20 8 1/4	20 8 1/4	4 4 1/16	88.51.47	89.42.55
112	50 2 11/16	4 4 1/4	20 9 1/8	20 9 1/16	4 4 1/4	89.04.37	89.30.05
113	41 15/16	16 2 13/16	20 6 7/16		4 3 11/16	88.25.56	90.23.33
114	41 2 11/16	16 3 1/2	20 7 5/16		4 3 7/8	88.40.47	90.08.42
115	41 4 7/16	16 4 3/16	20 8 3/16		4 4 1/16	88.55.32	89.53.56
116	41 6 3/16	16 4 7/8	20 9 1/16		4 4 1/4	89.10.12	89.39.13
117	29 1 5/8	16 2 3/4			12 10 7/8	88.30.32	90.37.09
118	29 2 15/16	16 3 7/16			12 11 1/2	88.46.49	90.20.52
119	29 4 1/4	16 4 1/8			13 1/8	89.02.59	90.04.41
120	29 5 9/16	16 4 7/8			13 3/4	89.19.02	89.48.38

FLOOR BEAM DIMENSIONS

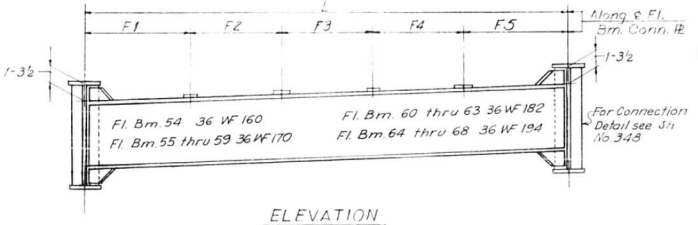
FL BM	L	F1	F2	F3	F4	F5	A1	A2	A3	A4	A5	A6
51	32'-1/8"	8'-1/8"	8	8'	○	8'	88.40.13'	88.51.45"	88.51.45"	—	88.51.45"	88.51.45"
52	32 3/16	8 3/16	8	8	○	8	90.56.48	91.08.15	91.08.15	—	91.08.15	91.08.15
53	32 3 3/8	6 5-1/2	6 5-1/2	6 5-1/2	6 5-1/2	6 5-1/2	89.37.48	89.14.27	89.19.01	89.23.76	89.28.11	89.57.44
54	32 4 5/16	6 5	6 5 11/16	6 5 11/16	6 5 11/16	6 6 5/16	89.37.27	89.38.54	89.43.31	89.48.06	89.52.39	90.00.00
55	32 6 1/16	6 5 1/2	6 6	6 6	6 6	6 6 1/2	89.37.14	89.08.01	89.14.11	89.20.13	89.26.11	90.00.00
56	32 8 1/8	6 5 1/8	6 6 7/16	6 6 7/16	6 6 7/16	6 7 11/1	89.29.01	89.43.23	89.48.27	89.55.29	90.01.27	90.00.00
57	32 10 1/2	6 6 1/4	6 6 15/16	6 6 15/16	6 6 15/16	6 7 1/2	89.29.18	88.53.19	89.01.15	89.09.08	89.16.58	90.00.00
58	33 1 3/16	6 6 7/16	6 7 1/2	6 7 1/2	6 7 1/2	6 8 3/8	89.20.35	89.28.35	89.36.31	89.44.23	89.52.13	90.00.00
59	33 4 1/8	6 7 3/8	6 8 1/16	6 8 1/16	6 8 1/16	6 8 5/8	89.16.23	90.03.50	90.11.46	90.19.39	90.27.29	90.00.00
60	33 7 7/16	6 7 3/8	6 8 11/16	6 8 11/16	6 8 11/16	6 9 15/16	89.12.11	89.11.47	89.23.35	89.33.19	89.43.00	90.00.00
61	33 11	6 8 7/8	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/8	89.07.59	89.49.02	89.58.50	90.08.35	90.18.15	90.00.00
62	34 2 7/8	6 9 5/16	6 10 3/16	6 10 3/16	6 10 3/16	6 11	89.03.48	89.15.11	89.26.30	89.37.45	89.48.55	90.00.00
63	34 7	6 10 3/8	6 11	6 11	6 11	6 11 5/8	88.59.36	88.33.16	88.46.16	88.59.11	89.12.00	90.00.00
64	34 11 1/2	6 9 7/8	6 11 15/16	6 11 15/16	6 11 15/16	7 1 13/16	88.55.26	89.08.31	89.21.32	89.34.26	89.47.16	90.00.00
65	35 4 1/4	7 3/16	7 7/8	7 7/8	7 7/8	7 1 7/16	88.51.15	89.43.47	89.56.47	90.09.42	90.22.31	90.00.00
66	35 9 5/16	7 9/16	7 1 7/8	7 1 7/8	7 1 7/8	7 2 1/8	88.47.05	88.53.48	89.08.39	89.23.24	89.38.04	90.00.00
67	36 2 11/16	7 2 7/16	7 2 15/16	7 2 15/16	7 2 15/16	7 2 7/16	88.42.56	89.29.03	89.43.55	89.58.40	90.13.19	90.00.00
68	36 8 5/16	7 3 3/8	7 4 1/16	7 4 1/16	7 4 1/16	7 4 11/16	88.38.47	88.58.24	89.14.41	89.30.51	89.46.54	90.00.00
69	37	7 4 13/16	7 4 13/16	7 4 13/16	7 4 13/16	7 5 1/16	88.38.29	89.22.51	89.39.08	89.55.19	90.11.22	90.00.16



TYPICAL STRINGER

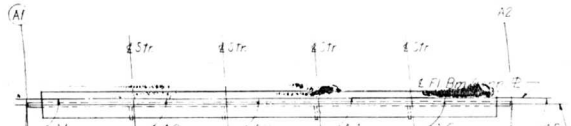


PLAN

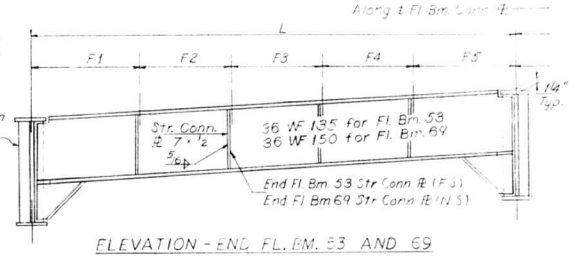


ELEVATION

INTERIOR FLOOR BEAM 54 THRU 68

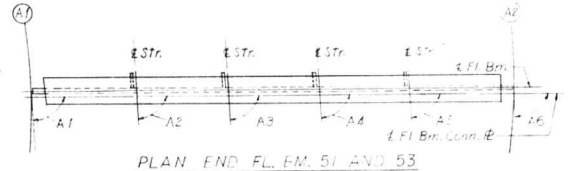


PLAN - END FL. BM. 52 AND 69



ELEVATION - END FL. BM. 53 AND 69

Note: For Elevation and Details of End Fl. Bm. 51 and 52 see Sh No. 195



PLAN END FL. BM. 51 AND 53

END FLOOR BEAM 51, 52, 53 AND 69

Notes:

Length L of stringers and Fl. Bms. is correct as given in the Table except the increment lengths are given to the nearest "16".

All dimensions are in the horizontal plane.

For Details of Stringer in Span A11 see Sh. No. 195

For Connection Plate Details see Sh. No. 348

DESIGNED BY: [illegible]
DRAWN BY: DGH
CHECKED BY: [illegible]
APPROVED BY: [illegible]

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS A11 THRU A14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 193 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF.B.E.I	ST. CLAIR	247	24
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 54 THRU 56	T1	T2	T3	T4
STR. 89 THRU 96	1	3/8	1 1/8	1/2

FLOOR BEAM 57	T1	T2	T3	T4
STR.				
97		3/8	1 1/8	1/2
98	1	3/8	1 1/8	1/2
99	1	3/8	1 1/8	1/2
100		3/8	1 1/8	1/2

FLOOR BEAM 58	T1	T2	T3	T4
STR.				
97	1	3/8	1 1/8	1/2
98	1	3/8	1 1/8	1/2
99	1	3/8	1 1/8	1/2
100	1	3/8	1 1/8	1/2

FLOOR BEAM 59	T1	T2	T3	T4
STR.				
97	1	3/8	1 1/8	1/2
98	1	3/8	1 1/8	1/2
99	1	3/8	1 1/8	1/2
100	1	3/8	1 1/8	1/2

FLOOR BEAM 60	T1	T2	T3	T4
STR.				
101	1	3/8	1 1/8	1/2
102	1	3/8	1 1/8	1/2
103	1	3/8	1 1/8	1/2
104	1	3/8	1 1/8	1/2

FLOOR BEAM 61	T1	T2	T3	T4
STR.				
101	1	3/8	1 1/8	1/2
102	1	3/8	1 1/8	1/2
103	1	3/8	1 1/8	/2
104	1	3/8	1 1/8	1/2

FLOOR BEAM 62	T1	T2	T3	T4
STR.				
101	1	3/8	1 1/8	1/2
102	1	3/8	1 1/8	1/2
103	1	3/8	1 1/8	1/2
104	1	3/8	1 1/8	1/2

FLOOR BEAM 63	T1	T2	T3	T4
STR.				
109	1	7/16	1 1/16	1/2
110	1	3/8	1 1/8	1/2
111	1	3/8	1 1/8	1/2
112	1	3/8	1 1/8	1/2

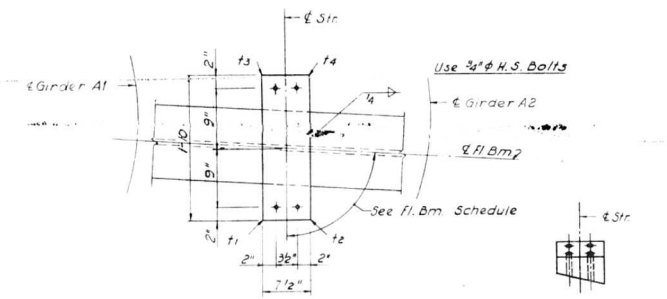
FLOOR BEAM 64	T1	T2	T3	T4
STR.				
109	1	7/16	1 1/16	1/2
110	1	3/8	1 1/8	1/2
111	1	3/8	1 1/8	1/2
112	1	3/8	1 1/8	1/2

FLOOR BEAM 65	T1	T2	T3	T4
STR.				
109	1	7/16	1 1/16	1/2
110	1	3/8	1 1/8	1/2
111	1	3/8	1 1/8	1/2
112	1	3/8	1 1/8	1/2

FLOOR BEAM 66	T1	T2	T3	T4
STR.				
113	1	7/16	1 1/16	1/2
114	1	7/16	1 1/16	1/2
115	1	3/8	1 1/8	1/2
116	1	3/8	1 1/8	1/2

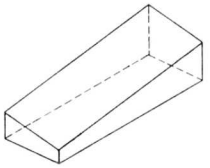
FLOOR BEAM 67	T1	T2	T3	T4
STR.				
113	1	7/16	1 1/16	1/2
114	1	7/16	1 1/16	1/2
115	1	3/8	1 1/8	1/2
116	1	3/8	1 1/8	1/2

FLOOR BEAM 68	T1	T2	T3	T4
STR.				
117	1	7/16	1 1/16	1/2
118	1	7/16	1 1/16	1/2
119	1	3/8	1 1/8	1/2
120	1	3/8	1 1/8	1/2

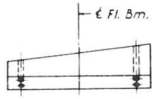


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A12 THRU A14

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

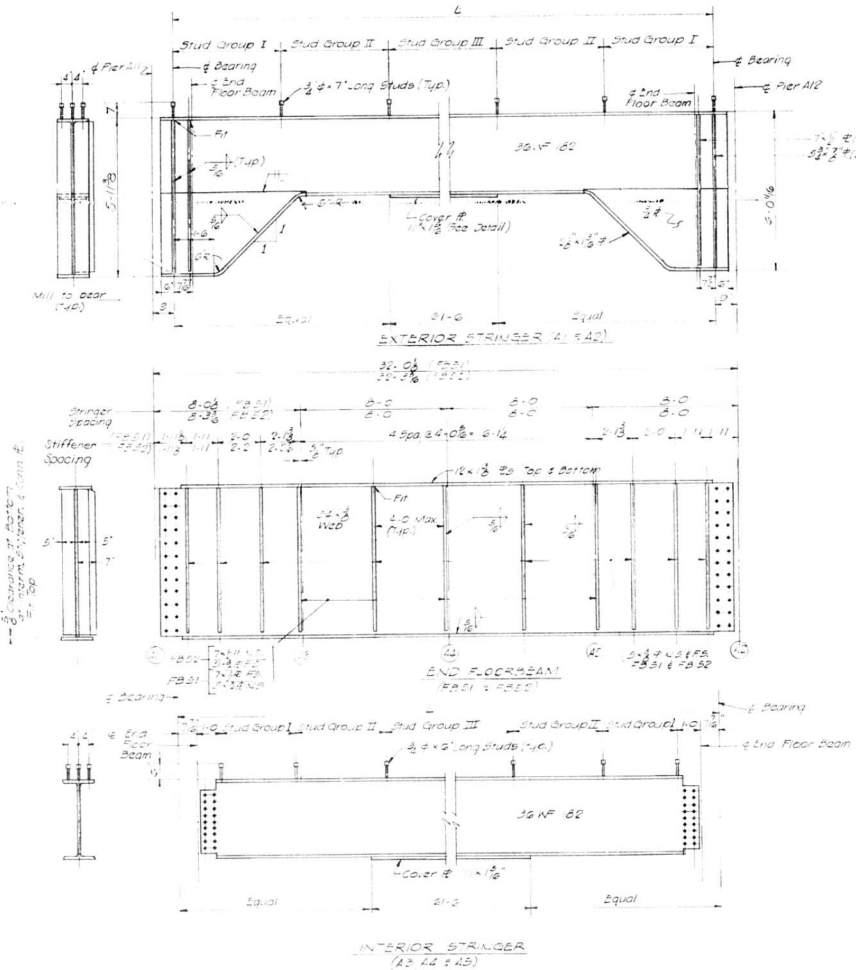
FAI RT 70 ST. CLAIR CO. SECTION 82-3HVF. B. E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
24 of 526

DESIGNED BY A.S.C.
DRAWN BY A.N.
CHECKED BY A.S.
APPROVED BY A.A.

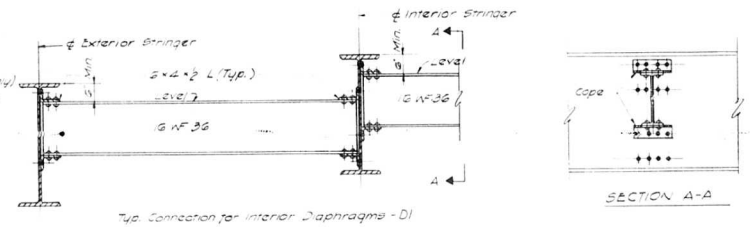
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVF & E-1	ST. CLAIR	247	65
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



EXTERIOR STRINGER (A1 & A2)

END FLOORBEAM (FB51 & FB52)

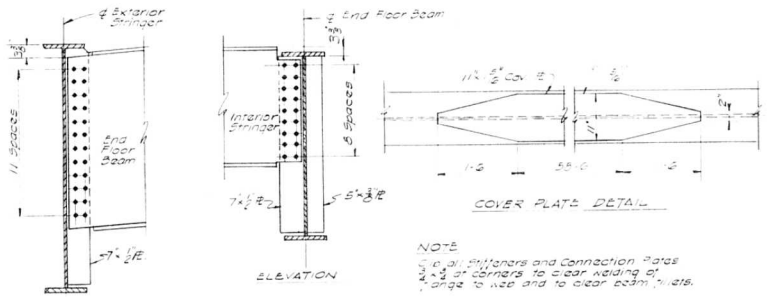
INTERIOR STRINGER (A3, A4 & A5)



Typ. Connection for Interior Diaphragms - D1

DIAPHRAGM DETAILS

SECTION A-A

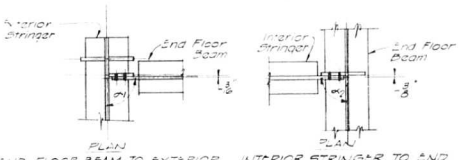


ELEVATION

ELEVATION

COVER PLATE DETAIL

NOTE
Clip all Stiffeners and Connection Plates ¾ × ¾ at corners to clear welding of flange to web and to clear beam fillets.



PLAN

END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

PLAN

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION



DEAD LOAD DEFLECTION DIAGRAM FOR END FLOOR BEAM
(Wt. of Concrete Only)

NOTE:
For Framing Plan see Sheet No. 192

NOTE: For Angles see Floor Beam Schedule. Sheet No. 193

STRINGER LENGTH & SHEAR CONN. SPACING				
STRINGER	LENGTH (L)	GROUP I	GROUP II	GROUP III
A1	77-10¼	35@4¾"	30@6½"	21@10" ±
A3	78-2⅛	32@4¾"	31@6½"	19@10" ±
A4	78-5 5/16"	32@4¾"	31@6½"	19@10¼" ±
A5	78-9¾	32@4¾"	31@6½"	19@10¼" ±
A2	79-1 9/16	36-4¾"	31@6½"	20@10¼" ±

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN A11
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

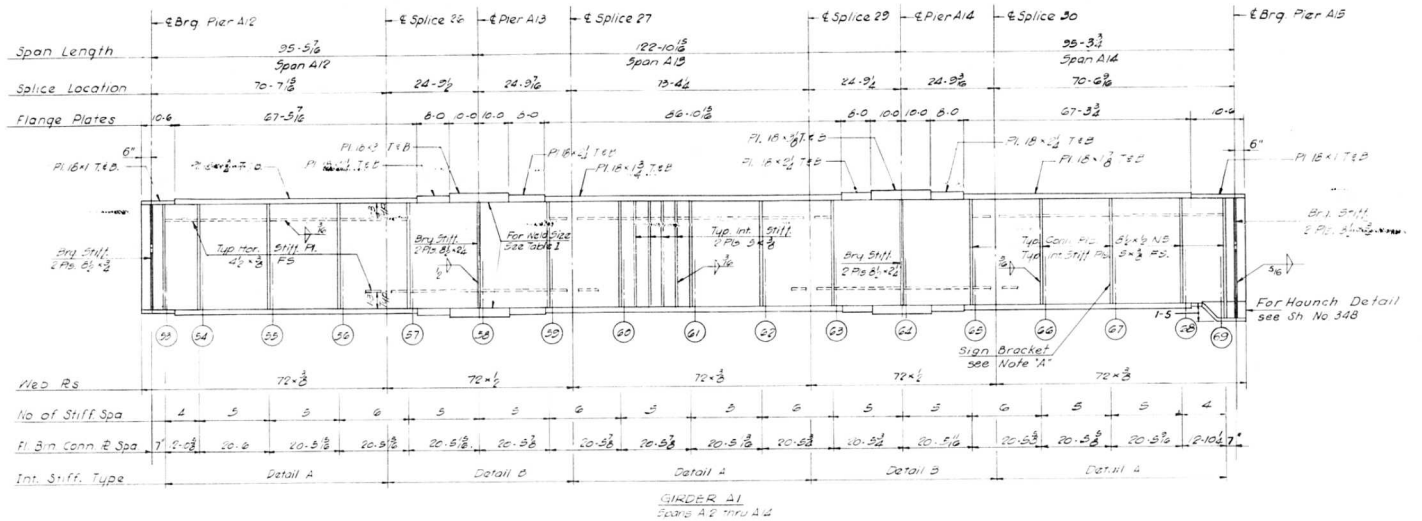
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 195 OF 526

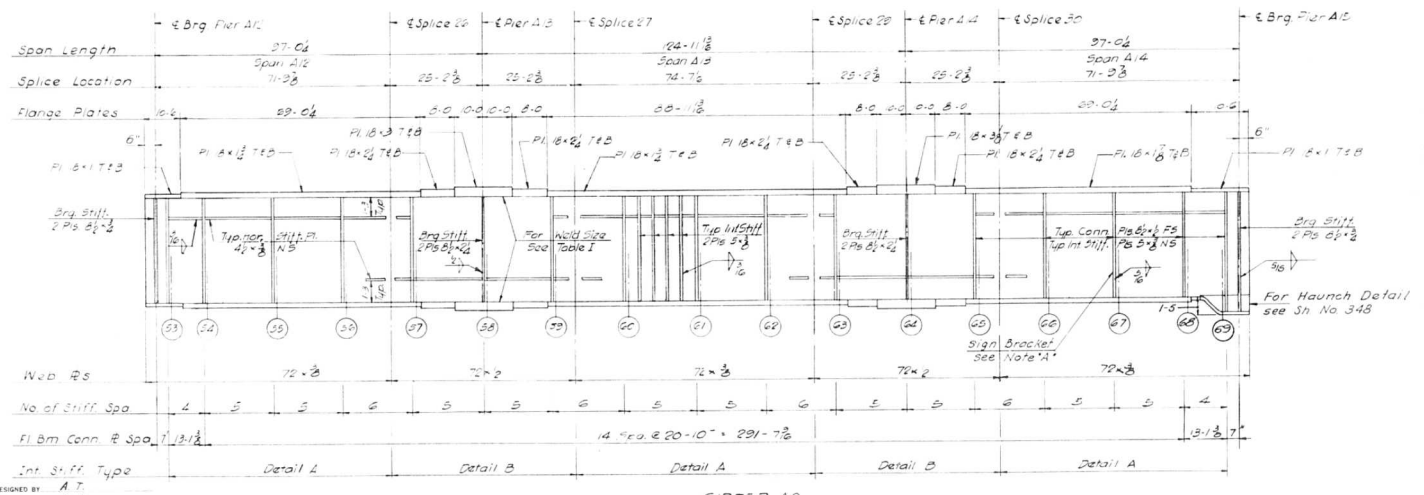
DESIGNED BY H.J.
DRAWN BY V.J.
CHECKED BY L.W.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I 70	82-3HVF & E-1	ST. CLAIR	247	66
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
Spans A12 thru A14

Note "A"
Intermediate Stiffeners should be moved if necessary to clear Sign bracket Connection plates.



GIRDER A2
Spans A12 thru A14

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 192.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350.
For Sign Bracket Detail see Sheet No. 360.

DESIGNED BY A.T.
DRAWN BY D.T.
CHECKED BY E.L.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

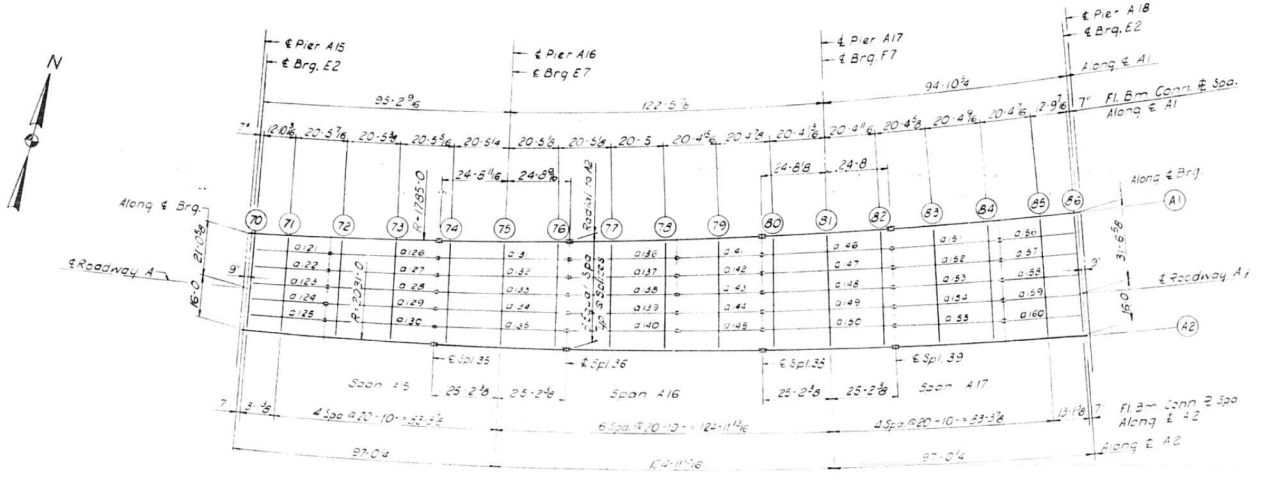
GIRDERS A1 AND A2
SPANS A12 THRU A14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 196 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	284	67
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS A15 THRU A17

ELEVATION TOP OF GIRDER WEB

	GIR. A1	GIR. A2	DIFF.
CL. BRG.	448.646	451.610	2.964
FLOOR BEAM 70	448.648	451.613	2.965
FLOOR BEAM 71	448.685	451.678	2.993
FLOOR BEAM 72	448.745	451.781	3.036
FLOOR BEAM 73	448.805	451.885	3.080
SPLICE 35	448.852	451.966	3.114
FLOOR BEAM 74	448.864	451.988	3.124
FLOOR BEAM 75	448.918	452.091	3.173
FLOOR BEAM 76	448.972	452.195	3.223
SPLICE 36	448.983	452.216	3.233
FLOOR BEAM 77	449.021	452.298	3.277
FLOOR BEAM 78	449.070	452.401	3.331
FLOOR BEAM 79	449.118	452.505	3.387

	GIR. A1	GIR. A2	DIFF
SPLICE 38	449.157	452.586	3.429
FLOOR BEAM 80	449.166	452.608	3.442
FLOOR BEAM 81	449.208	452.711	3.503
FLOOR BEAM 82	449.251	452.815	3.564
SPLICE 39	449.260	452.836	3.576
FLOOR BEAM 83	449.289	452.918	3.629
FLOOR BEAM 84	449.327	453.021	3.694
FLOOR BEAM 85	449.364	453.125	3.761
FLOOR BEAM 86	449.387	453.190	3.803
CL. BRG.	449.388	453.192	3.804

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No 153

BILL OF MATERIAL		
*Structural Steel	Lbs.	497,150

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 10,700 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS A15 THRU A17
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 197 OF 526

DESIGNED BY R.J.P.
DRAWN BY I.M.
CHECKED BY M.J.S.
APPROVED BY J.A.

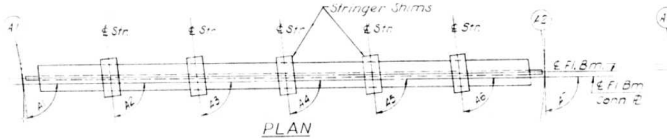
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 7 0	82-3HVF B E-1	ST. CLAIR	247	68
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

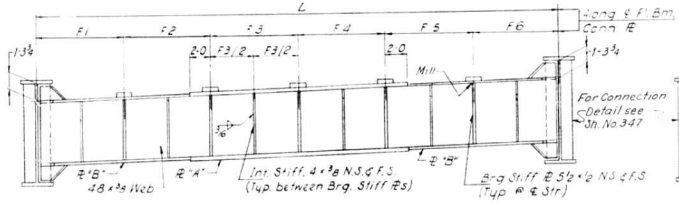
STR #	L	S1	S2	S3	S4	B1	B2
121	29 - 1 5/16"	12' 10 3/4"			16 2 9/16"	88°20.11"	90°47.30"
122	29 2 7/16	12 11 1/4			16 3 1/8	88.34.53	90.32.48
123	29 3 1/2	12 11 13/16			16 3 3/4	88.49.28	90.18.12
124	29 4 5/8	13 5/16			16 4 5/16	89.03.59	90.03.42
125	29 5 13/16	13 13/16			16 4 15/16	89.18.23	89.49.17
126	41 3/16	4 3 5/8	20 6 1/8		16 2 7/16	88.06.22	90.43.07
127	41 1 11/16	4 3 3/4	20 6 7/8		16 3 1/16	88.22.14	90.27.14
128	41 3 1/4	4 3 15/16	20 7 5/8		16 3 11/16	88.38.01	90.11.28
129	41 4 13/16	4 4 1/8	20 8 7/16		16 4 5/16	88.53.41	89.55.48
130	41 6 3/8	4 4 1/4	20 9 3/16		16 4 15/16	89.09.16	89.40.13
131	49 7 1/16	4 3 5/8	20 6	20 5 7/8	4 3 9/16	87.51.27	90.43.15
132	49 [illegible]	4 3 3/4	20 6 13/16	20 6 11/16	4 3 3/4	88.08.51	90.25.51
133	49 10 15/16	4 3 15/16	20 7 9/16	20 7 1/2	4 3 7/8	88.26.09	90.08.33
134	50 13/16	4 4 1/16	20 8 3/8	20 8 5/16	4 4 1/16	88.43.19	89.51.22
135	50 2 13/16	4 4 1/4	20 9 3/16	20 9 1/8	4 4 1/4	89.00.23	89.34.18
136	40 11 11/16	16 2 3/8	20 5 13/16		4 3 1/2	87.51.22	90.58.07
137	41 1 5/16	16 3	20 6 5/8		4 3 11/16	88.10.17	90.39.12
138	41 2 15/16	16 3 5/8	20 7 7/16		4 3 7/8	88.29.05	90.20.24
139	41 4 9/16	16 4 1/4	20 8 1/4		4 4 1/16	88.47.46	90.01.43
140	41 6 1/4	16 4 7/8	20 9 1/8		4 4 1/4	89.06.19	89.43.10
141	32 4 7/16	16 2 1/4			16 2 3/16	87.52.44	91.11.32
142	32 5 3/4	16 2 7/8			16 2 13/16	88.12.53	90.51.23
143	32 7 1/16	16 3 9/16			16 3 1/2	88.32.54	90.31.22
144	32 8 3/8	16 4 3/16			16 4 3/16	88.52.47	90.11.29
145	32 9 3/4	16 4 7/8			16 4 7/8	89.12.31	89.51.45
146	49 6 3/16	4 3 9/16	20 5 11/16	20 5 1/2	4 3 7/16	87.31.15	91.03.26
147	49 8 1/4	4 3 11/16	20 6 1/2	20 6 3/8	4 3 5/8	87.52.46	90.41.55
148	49 10 5/16	4 3 7/8	20 7 3/8	20 7 1/4	4 3 13/16	88.14.09	90.20.33
149	50 7/16	4 4 1/16	20 8 3/16	20 8 1/8	4 4	88.35.22	89.59.20
150	50 2 3/16	4 4 1/4	20 9 1/16	20 9 1/16	4 4 1/4	88.56.26	89.38.16
151	40 10 7/8	16 2 1/16	20 5 3/8		4 3 7/16	87.31.19	91.18.10
152	41 5/8	16 2 3/4	20 6 1/4		4 3 5/8	87.54.20	90.55.09
153	41 2 7/16	16 3 7/16	20 7 3/16		4 3 13/16	88.17.11	90.32.18
154	41 4 1/4	16 4 1/8	20 8 1/8		4 4	88.39.52	90.09.37
155	41 6 1/16	16 4 13/16	20 9		4 4 3/16	89.02.23	89.47.06
156	29	16 1 15/16			12 10 1/16	87.35.57	91.31.44
157	29 1 5/16	16 2 5/8			12 10 11/16	88.00.07	91.07.33
158	29 2 11/16	16 3 5/16			12 11 3/8	88.24.07	90.43.34
159	29 4 1/8	16 4 1/16			13	88.47.55	90.19.45
160	29 5 1/2	16 4 13/16			13 11/16	89.11.32	89.56.08

FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7	Plate A Top & Bot	Plate B Top & Bot
70	37 - 13/16"	6 2 1/8"	6 2 1/8"	6 2 1/8"	6 2 1/8"	6 2 1/8"	6 2 1/8"	88°33.20"	88°20.11"	88°34.53"	88°49.28"	89°03.59"	89°18.23"	89°57.44"	12"x7/8"	12"x7/8"
71	37 4 5/8	6 2 1/16	6 2 13/16	6 2 13/16	6 2 13/16	6 2 13/16	6 3 7/16	88.33.03	88.44.38	88.59.20	89.13.56	89.28.26	89.42.51	90.00.00	12x1/8	12x7/8
72	37 11	6 3 5/16	6 3 13/16	6 3 13/16	6 3 13/16	6 3 13/16	6 4 5/16	88.28.55	88.13.46	88.29.38	88.45.24	89.01.05	89.16.39	90.00.00	12x1/4	12x1
73	38 5 5/8	6 3 5/8	6 4 15/16	6 4 15/16	6 4 15/16	6 4 15/16	6 6 3/16	88.24.48	88.49.01	89.04.54	89.20.40	89.36.20	89.51.55	90.00.00	12x1/4	12x1
74	39 9/16	6 5 7/16	6 6 1/8	6 6 1/8	6 6 1/8	6 6 1/8	6 6 11/16	88.20.41	87.58.51	88.16.15	88.33.32	88.50.43	89.07.47	90.00.00	12x1 3/8	12x1 1/16
75	39 7 13/16	6 5 1/4	6 7 5/16	6 7 5/16	6 7 5/16	6 7 5/16	6 9 3/16	88.16.35	88.34.06	88.51.30	89.08.48	89.25.58	89.43.03	90.00.00	2x1 3/8	12x1 1/8
76	40 3 5/16	6 7 15/16	6 8 9/16	6 8 9/16	6 8 9/16	6 8 9/14	6 9 3/16	88.12.30	89.09.22	89.26.48	89.44.01	90.01.14	90.18.18	90.00.00	2x1 3/8	12x1 1/4
77	40 11 1/8	6 8 9/16	6 9 7/8	6 9 7/8	6 9 7/8	6 9 7/8	6 11 1/8	88.08.25	88.19.14	88.38.09	88.56.57	89.15.38	89.34.11	90.00.00	2x1 3/8	2x1 1/4
78	41 7 1/4	6 10 11/16	6 11 3/16	6 11 3/16	6 11 3/16	6 11 3/16	6 11 11/16	88.04.21	88.54.29	89.13.25	89.32.13	89.50.53	90.09.26	90.00.00	2x1 1/2	2x1 1/4
79	42 3 5/8	6 11 3/4	7 5/8	7 5/8	7 5/8	7 5/8	7 1 7/16	88.01.18	88.20.36	88.40.45	89.00.46	89.20.39	89.40.23	90.00.00	2x1 1/2	2x1 1/4
80	43 5/16	7 1 7/16	7 2 1/16	7 2 1/16	7 2 1/16	7 2 1/16	7 2 5/8	87.56.16	87.38.39	88.00.10	88.21.32	88.42.45	89.03.47	90.00.00	2x1 1/2	2x1 1/4
81	43 9 1/4	7 1 1/2	7 3 9/16	7 3 9/16	7 3 9/16	7 3 9/16	7 5 7/16	87.52.14	88.13.55	88.35.26	88.56.48	89.18.01	89.39.05	90.00.00	2x1 5/8	2x1 3/8
82	44 6 1/2	7 4 7/16	7 5 1/16	7 5 1/16	7 5 1/16	7 5 1/16	7 5 11/16	87.48.13	88.09.10	88.30.41	88.52.03	89.13.16	89.34.20	90.00.00	2x1 5/8	2x1 3/8
83	45 4	7 5 3/8	7 6 11/16	7 6 11/16	7 6 11/16	7 6 11/16	7 7 15/16	87.44.13	87.59.11	88.22.12	88.45.03	89.07.44	89.30.15	90.00.00	2x1 3/4	2x1 1/2
84	46 1 13/16	7 7 13/16	7 8 5/16	7 8 5/16	7 8 5/16	7 8 5/16	7 8 13/16	87.40.14	88.34.26	88.57.27	89.20.18	89.43.00	90.05.31	90.00.00	2x1 3/4	2x1 1/2
85	46 11 7/8	7 9 5/16	7 10	7 10	7 10	7 10	7 10 5/8	87.36.15	88.03.49	88.27.59	88.51.59	89.15.47	89.39.24	90.00.00	2x1 7/8	2x1 5/8
86	47 4 3/8	7 11 1/16	7 11 1/16	7 11 1/16	7 11 1/16	7 11 1/16	7 11 1/16	87.36.05	88.28.16	88.52.27	89.16.26	89.40.15	90.03.52	90.00.16	2x1 1/4	2x1

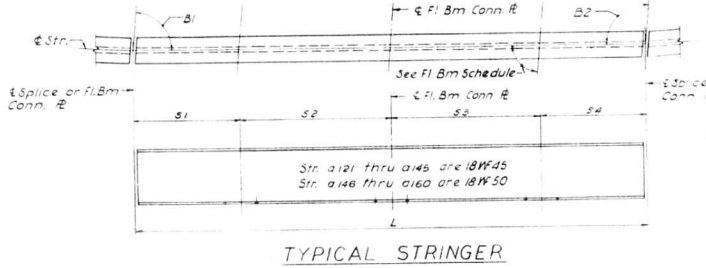


PLAN

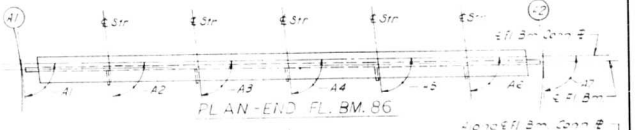


ELEVATION

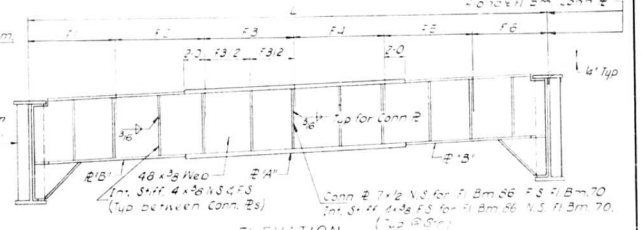
INTERIOR FLOOR BEAM 71 THRU 85



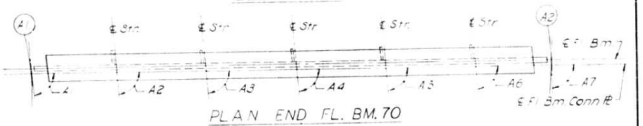
TYPICAL STRINGER



PLAN-END FL. BM. 86



ELEVATION



PLAN END FL. BM. 70

END FLOOR BEAM 70 AND 86

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the table except the referenced lengths are given to the nearest 16".

All dimensions are in the horizontal plane.

For Intermediate Stiffener Brg. Stiffener and Connection Plate Details see Sh. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS A15 THRU A17
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF B E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 198 of 526

DESIGNED BY A.T. & A.J.C.
DRAWN BY I.M.
CHECKED BY A.J.C.
APPROVED BY A.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVFB&I	ST CLAIR	247	69
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 71	T1	T2	T3	T4
STR.				
121	1	7/16	1 1/16	1/2
122	1	7/16	1 1/16	1/2
123	1	7/16	1 1/16	1/2
124	1	3/8	1 1/8	1/2
125	1	3/8	1 1/8	1/2

FLOOR BEAM 72	T1	T2	T3	T4
STR.				
126	1	7/16	1 1/16	1/2
127	1	7/16	1 1/16	1/2
128	1	3/8	1 1/8	1/2
129	1	3/8	1 1/8	1/2
130	1	3/8	1 1/8	1/2

FLOOR BEAM 73	T1	T2	T3	T4
STR.				
126	1	7/16	1 1/16	1/2
127	1	7/16	1 1/16	1/2
128	1	7/16	1 1/16	1/2
129	1	3/8	1 1/8	1/2
130	1	3/8	1 1/8	1/2

FLOOR BEAM 74	T1	T2	T3	T4
STR.				
131	1	7/16	1 1/16	1/2
132	1	7/16	1 1/16	1/2
133	1	7/16	1 1/16	1/2
134	1	3/8	1 1/8	1/2
135	1	3/8	1 1/8	1/2

FLOOR BEAM 75	T1	T2	T3	T4
STR.				
131	1	7/16	1 1/16	1/2
132	1	7/16	1 1/16	1/2
133	1	7/16	1 1/16	1/2
134	1	3/8	1 1/8	1/2
135	1	3/8	1 1/8	1/2

FLOOR BEAM 76	T1	T2	T3	T4
STR.				
131	1	7/16	1 1/16	1/2
132	1	7/16	1 1/16	1/2
133	1	7/16	1 1/16	1/2
134	1	3/8	1 1/8	1/2
135	1	3/8	1 1/8	1/2

FLOOR BEAM 77	T1	T2	T3	T4
STR.				
136	1	7/16	1 1/16	1/2
137	1	7/16	1 1/16	1/2
138	1	7/16	1 1/16	1/2
139	1	3/8	1 1/8	1/2
140	1	3/8	1 1/8	1/2

FLOOR BEAM 78	T1	T2	T3	T4
STR.				
136	1	7/16	1 1/16	1/2
137	1	7/16	1 1/16	1/2
138	1	7/16	1 1/16	1/2
139	1	3/8	1 1/8	1/2
140	1	3/8	1 1/8	1/2

FLOOR BEAM 79	T1	T2	T3	T4
STR.				
141	1	7/16	1 1/16	1/2
142	1	7/16	1 1/16	1/2
143	1	7/16	1 1/16	1/2
144	1	3/8	1 1/8	1/2
145	1	3/8	1 1/8	1/2

FLOOR BEAM 80	T1	T2	T3	T4
STR.				
146	1	7/16	1 1/16	1/2
147	1	7/16	1 1/16	1/2
148	1	7/16	1 1/16	1/2
149	1	3/8	1 1/8	1/2
150	1	3/8	1 1/8	1/2

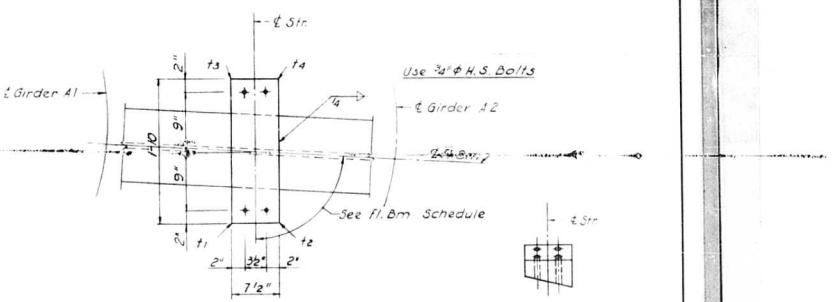
FLOOR BEAM 81	T1	T2	T3	T4
STR.				
146	1	7/16	1 1/16	1/2
147	1	7/16	1 1/16	1/2
148	1	7/16	1 1/16	1/2
149	1	3/8	1 1/8	1/2
150	1	3/8	1 1/8	1/2

FLOOR BEAM 82	T1	T2	T3	T4
STR.				
146	1	7/16	1 1/16	1/2
147	1	7/16	1 1/16	1/2
148	1	7/16	1 1/16	1/2
149	1	3/8	1 1/8	1/2
150	1	3/8	1 1/8	1/2

FLOOR BEAM 83	T1	T2	T3	T4
STR.				
151	1	7/16	1 1/16	1/2
152	1	7/16	1 1/16	1/2
153	1	7/16	1 1/16	1/2
154	1	7/16	1 1/16	1/2
155	1	3/8	1 1/8	1/2

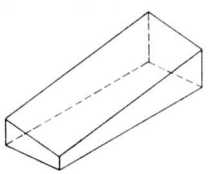
FLOOR BEAM 84	T1	T2	T3	T4
STR.				
151	1	7/16	1 1/16	1/2
152	1	7/16	1 1/16	1/2
153	1	7/16	1 1/16	1/2
154	1	7/16	1 1/16	1/2
155	1	3/8	1 1/8	1/2

FLOOR BEAM 85	T1	T2	T3	T4
STR.				
156	1	7/16	1 1/16	1/2
157	1	7/16	1 1/16	1/2
158	1	7/16	1 1/16	1/2
159	1	7/16	1 1/16	1/2
160	1	3/8	1 1/8	1/2

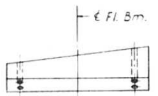


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A15 THRU A17

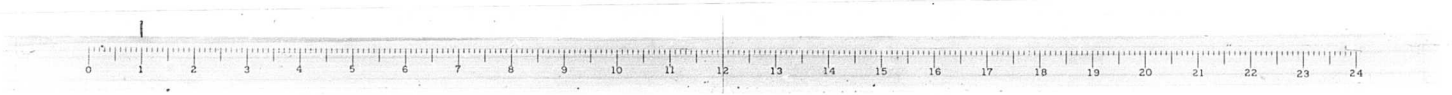
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF B.E.I.

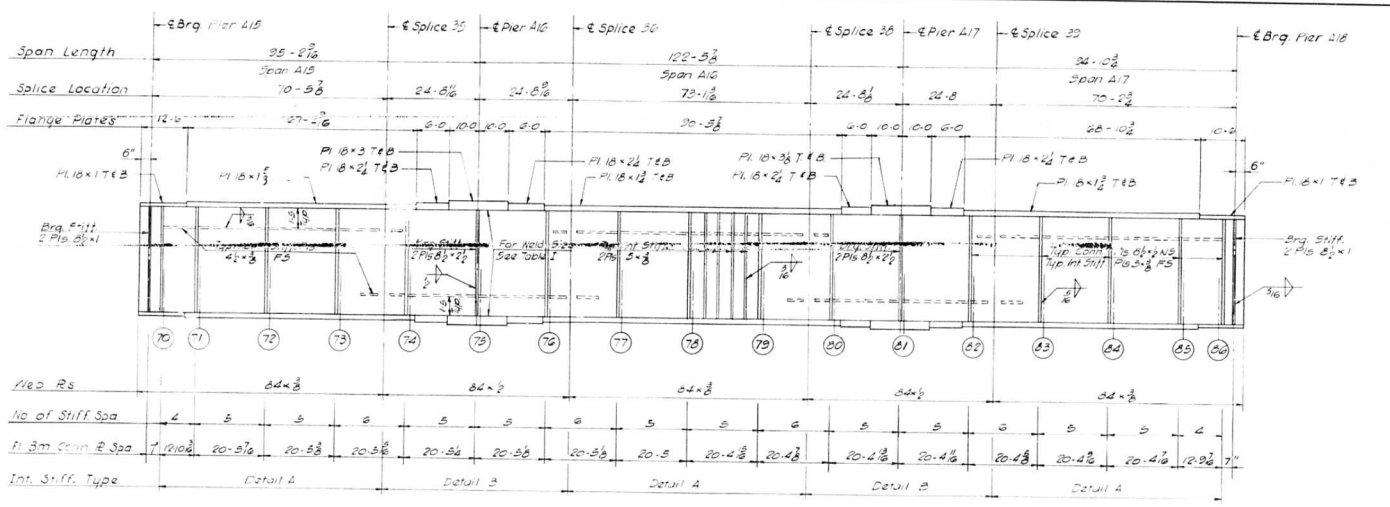
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 199 OF 526

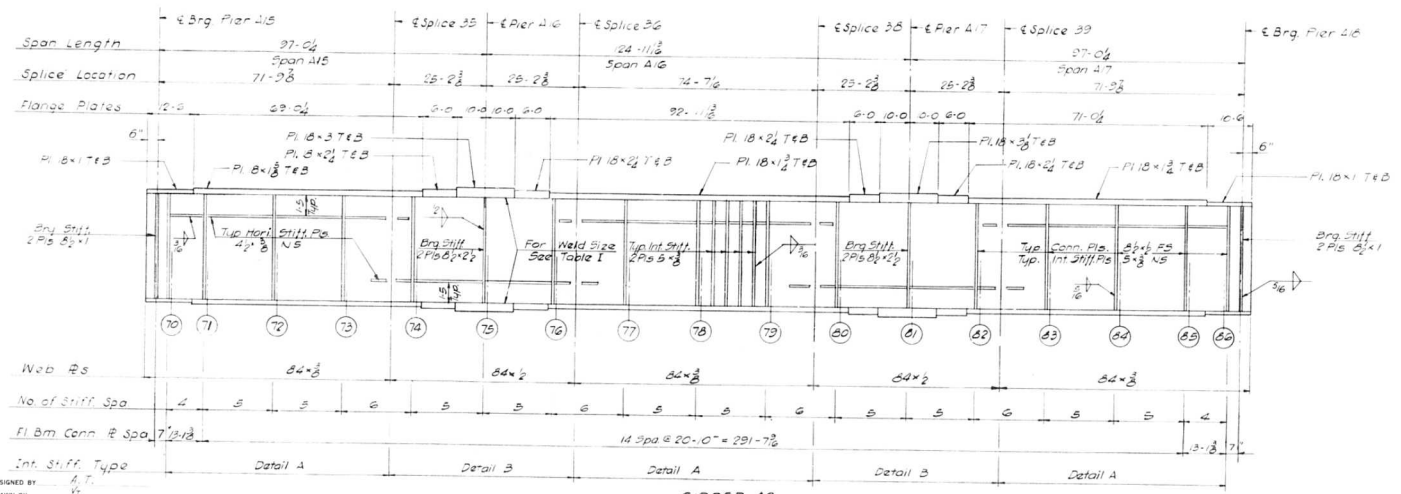
DESIGNED BY A.J.C.
DRAWN BY I.M.
CHECKED BY A.S.
APPROVED BY



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	70
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
Spans A15 thru A17



GIRDER A2
Spans A15 thru A17

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 197 All Bearing Stiffeners and Connection Plates to be vertical.
For Splices, Stiffeners, Connection Plate details and Table I see Sheet No. 348, 349, 350.

DESIGNED BY A.T.
DRAWN BY V.T.
CHECKED BY E.T.L.
APPROVED BY K.A.

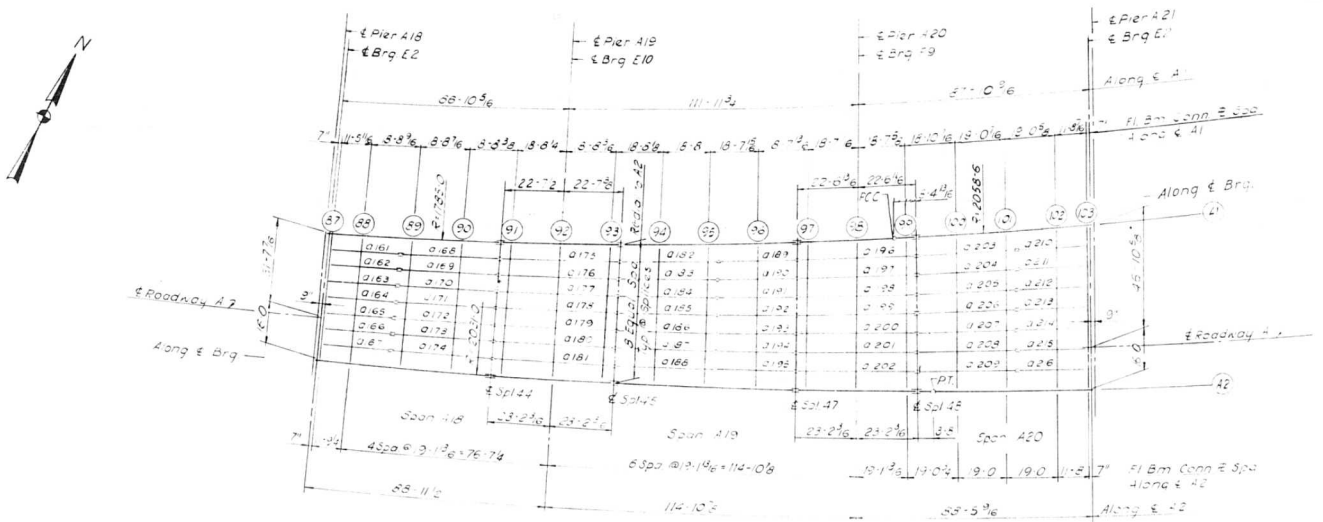
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS A1 AND A2
SPANS A15 THRU A17
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
70 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	71
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS A18 THRU A20

ELEVATION TOP OF GIRDER WEB

		GIR. A1	GIR. A2	DIFF.
CL. BRG.		449.391	453.200	3.809
FLOOR BEAM	87	449.391	453.203	3.812
FLOOR BEAM	88	449.409	453.261	3.852
FLOOR BEAM	89	449.437	453.356	3.919
FLOOR BEAM	90	449.466	453.451	3.985
SPLICE	44	449.488	453.526	4.038
FLOOR BEAM	91	449.496	453.548	4.052
FLOOR BEAM	92	449.530	453.654	4.124
FLOOR BEAM	93	449.564	453.759	4.195
SPLICE	45	449.571	453.781	4.210
FLOOR BEAM	94	449.703	453.918	4.215
FLOOR BEAM	95	449.869	454.091	4.222
FLOOR BEAM	96	450.034	454.265	4.231

		GIR A1	GIR A2	DIFF.
SPLICE	47	450.265	454.401	4.236
FLOOR BEAM	97	450.266	454.450	4.184
FLOOR BEAM	98	450.744	454.682	3.938
FLOOR BEAM	99	451.221	454.914	3.693
SPLICE	48	451.322	454.963	3.641
FLOOR BEAM	100	451.749	455.298	3.549
FLOOR BEAM	101	452.294	455.722	3.428
FLOOR BEAM	102	452.839	456.145	3.306
FLOOR BEAM	103	453.173	456.406	3.233
CL. BRG.		453.190	456.419	3.229

Note:
Dimensions locating floor Beams are given to the floor Beam Conn Plate see sketch Sheet No 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	572,430

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 15,230 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS A18 THRU A20

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

SHEET 201 of 526

DESIGNED BY R.M.R.
DRAWN BY I.M.
CHECKED BY A.J.C.
APPROVED BY K.A.

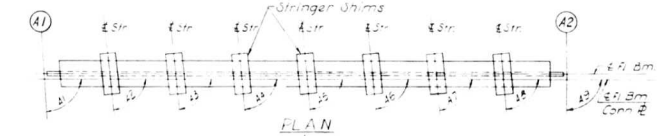
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF,B,E-1	ST. CLAIR	247	72
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

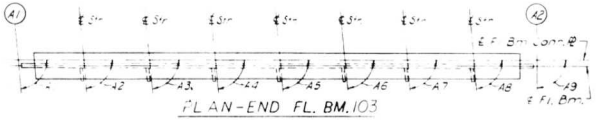
STR.	L	S1	S2	S3	S4	B1	B2
161	26' 3 7/8"	11' 6 1/8"	○	○	14 9 3/4"	87.24.44"	91.47.30"
162	26 4 13/16	11 6 9/16			14 10 1/4	87.43.41	91.28.33
163	26 5 3/4	11 7			14 10 3/4	88.02.31	91.09.43
164	26 6 3/4	11 7 7/16			14 11 5/16	88.21.14	90.51.00
165	26 7 11/16	11 7 7/8			14 11 13/16	88.39.50	90.32.23
166	26 8 11/16	11 8 5/16			15 3/8	88.58.20	90.13.54
167	26 9 11/16	11 8 3/4	○		15 7/8	89.16.43	89.55.31
168	37 6 1/8	3 11 7/16	18 9 1/8		14 9 5/8	87.11.59	91.43.11
169	37 7 7/16	3 11 9/15	18 9 3/4		1/8	87.31.42	91.23.28
170	37 8 3/4	3 11 11/16	18 10 7/16		14 10 11/16	87.51.18	91.03.52
171	37 10 1/8	3 11 13/16	18 11 1/16		14 11 3/16	88.10.47	90.44.23
172	37 11 7/16	3 11 15/16	18 11 3/4		14 11 3/4	88.30.10	90.25.01
173	38 13/16	4 1/8	19 7/16		15 5/16	88.49.25	90.05.45
174	38 2 3/16	4 1/4	19 1 1/8	○	15 7/8	89.08.34	89.46.37
175	45 4 1/2	3 11 3/8	18 9	18 8 13/16	3 11 5/16	86.58.15	91.43.16
176	45 6 1/8	3 11 1/2	18 9 5/8	18 9 1/2	3 11 7/16	87.18.59	91.22.32
177	45 7 13/16	3 11 11/16	18 10 5/16	18 10 3/16	3 11 5/8	87.39.36	91.01.55
178	45 9 7/16	3 11 13/16	18 11	18 10 7/8	3 11 3/4	88.00.05	90.41.26
179	45 11 3/16	3 11 15/16	18 11 11/16	18 11 5/8	3 11 15/16	88.20.26	90.21.05
180	46 7/8	4 1/16	19 3/8	19 5/16	4 7/16	88.40.40	90.00.51
181	46 2 5/8	4 1/4	19 1 1/16	19 1 1/16	4 1/4	89.00.47	89.40.44
182	37 5 7/16	14 9 1/2	18 8 11/16	○	3 11 1/4	86.58.14	91.56.56
183	37 6 13/16	14 10 1/16	18 9 3/8		3 11 7/16	87.19.59	91.35.11
184	37 8 1/16	14 10 9/16	18 10 1/16		3 11 9/16	87.41.35	91.13.35
185	37 9 11/16	14 11 1/8	18 10 13/16		3 11 3/4	88.03.04	90.52.07
186	37 11 1/8	14 11 11/16	18 11 9/16		3 11 7/8	88.24.24	90.30.46
187	38 5/8	15 1/4	19 5/16		4 1/16	88.45.36	90.09.34
188	38 2 1/8	15 7/8	19 1 1/16		4 1/4	89.06.40	89.48.31
189	29 6 9/16	14 9 3/8			14 9 1/4	86.59.34	92.09.15
190	29 7 11/16	14 9 15/16			14 9 13/16	87.22.07	91.46.42
191	29 8 7/8	14 10 1/2			14 10 3/8	87.44.32	91.24.17
192	29 10 1/16	14 11 1/16			14 11	88.06.48	91.02.01
193	29 11 1/4	14 11 5/8			14 11 9/16	88.28.55	90.39.54
194	30 7/16	15 1/4			15 3/16	88.50.54	90.17.55
195	30 1 5/8	15 13/16	○	○	15 13/16	89.12.44	89.56.05
196	45 3 1/4	3 11 5/16	18 8 1/2	18 8 5/16	3 11 3/16	86.40.01	92.01.30
197	45 5 1/16	3 11 7/16	18 9 3/16	18 9 1/16	3 11 3/8	87.03.27	91.38.04
198	45 6 7/8	3 11 9/16	18 9 15/16	18 9 13/16	3 11 1/2	87.26.44	91.14.48
199	45 8 3/4	3 11 3/4	18 10 11/16	18 10 9/16	3 11 11/16	87.49.51	90.51.40
200	45 10 5/8	3 11 7/8	18 11 7/16	18 11 3/8	3 11 7/8	88.12.49	90.28.43
201	46 1/2	4 1/16	19 1/4	19 3/16	4 1/16	88.35.37	90.05.54
202	46 2 7/16	4 1/4	19 1	19 1	4 3/16	88.58.16	89.43.15
203	37 11 7/8	14 11 1/2	19 5/16	○	4 1/16	86.46.15	93.05.33
204	37 11 7/8	14 11 9/16	19 1/4		4 1/16	87.14.48	92.38.59
205	37 11 7/8	14 11 11/16	19 3/16		4 1/16	87.41.22	92.12.25
206	37 11 15/16	14 11 13/16	19 1/8		4	88.07.56	91.45.52
207	38	14 11 15/16	19 1/16		4	88.34.29	91.19.18
208	38 1/16	15 1/16	19		4	89.01.02	90.52.45
209	38 3/16	15 3/16	19		4	89.27.34	90.26.13
210	26 8 3/4	15 7/16	○		11 8 5/16	86.06.59	93.53.01
211	26 8 9/16	15 5/16			11 8 1/4	86.40.12	93.19.48
212	26 8 3/8	15 3/16			11 8 1/8	87.13.26	92.46.34
213	26 8 1/4	15 1/8			11 8 1/16	87.46.43	92.13.17
214	26 8 1/8	15 1/16			11 8 1/16	88.20.01	91.39.59
215	26 8 1/16	15 1/16			11 8	88.53.20	91.06.40
216	26 8	15	○	○	11 8	89.26.40	90.33.20

FLOOR BEAM DIMENSIONS

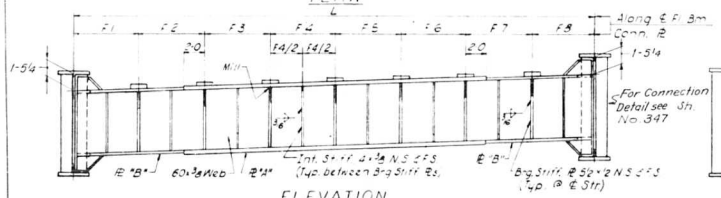
FL BM	L	F1	F2	F3	F4	F5	F6	F7	F8	A1	A2	A3	A4	A5	A6	A7	A8	A9	Plate A Top & Bot.	Plate B Top & Bot.
87	47 7 11/16"	5 11 7/16"	5 11 7/16"	5 11 7/16"	5 11 7/16	5 11 7/16	5 11 7/16	5 11 7/16"	5 11 7/16"	87.30.56	87.24.44	87.43.41	88.02.31	88.21.14	88.39.50	88.58.20	89.16.43	89.57.44"	12"x1/2"	2"x1/4"
88	48 1 5/8	5 11 5/8	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	6 3/16	87.31.01	87.46.54	88.05.51	88.24.41	88.43.25	89.02.01	89.20.31	89.38.54	90.00.00	12"x1/2	12"x3/4
89	48 11 1/2	6 1	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/8	87.27.24	87.18.48	87.38.31	87.58.07	88.17.37	88.36.59	88.56.14	89.15.23	90.00.00	12"x5/8	12"x7/8
90	49 9 9/16	6 1 9/16	6 2 11/16	6 2 11/16	6 2 11/16	6 2 11/16	6 2 11/16	6 2 11/16	6 3 3/4	87.23.48	87.51.13	88.10.56	88.30.32	88.50.02	89.09.24	89.28.39	89.47.48	90.00.00	12"x1/2	12"x7/8
91	50 7 7/8	6 3 7/16	6 4	6 4	6 4	6 4	6 4	6 4	6 4 1/2	87.20.12	87.05.05	87.25.49	87.46.25	88.06.56	88.27.16	88.47.30	89.07.36	90.00.00	12"x5/8	12"x7/8
92	51 6 3/8	6 3 5/8	6 5 5/16	6 5 5/16	6 5 5/16	6 5 5/16	6 5 5/16	6 5 5/16	6 6 7/8	87.16.37	87.37.30	87.58.14	88.18.50	88.39.19	88.59.41	89.19.55	89.40.01	90.00.00	12"x1/2	12"x1
93	52 5 3/16	6 6 1/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 5/8	6 6 9/16	87.13.04	88.09.54	88.30.39	88.51.15	89.11.44	89.32.06	89.52.20	90.12.26	90.00.00	12"x5/8	12"x1
94	53 4 3/16	6 6 15/16	6 8 1/16	6 8	6 8	6 8	6 8	6 8	6 9 1/16	87.09.30	87.23.50	87.45.34	88.07.11	88.28.39	88.49.59	89.11.11	89.32.15	90.00.00	12"x1/2	12"x1
95	54 3 3/8	6 9	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 13/16	87.05.58	87.56.14	88.17.59	88.39.36	89.01.04	89.22.24	89.43.36	90.04.40	90.00.00	12"x1/2	12"x1
96	55 2 13/16	6 10 1/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	6 11 9/16	87.02.27	87.25.10	87.47.43	88.10.08	88.32.24	88.54.31	89.16.29	89.38.19	90.00.00	12"x5/8	12"x1 1/8
97	56 2 1/2	6 11 3/4	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	7 5/16	7 13/16	86.58.57	86.46.51	87.10.16	87.33.33	87.56.40	88.19.38	88.42.27	89.05.06	90.00.00	12"x5/8	12"x1 1/8
98	57 2 3/8	7 1/8	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 1 13/16	7 3 3/8	86.55.28	87.19.16	87.42.41	88.05.58	88.29.06	88.52.03	89.14.51	89.37.36	90.00.00	12"x3/4	12"x1 1/4
99	58 2 1/2	7 2 13/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 5/16	7 3 13/16	86.53.08	87.21.40	88.15.06	88.38.23	89.01.30	89.24.28	89.47.16	90.09.55	90.00.00	12"x3/4	12"x1 1/4
100	59 3 1/8	7 4	7 5	7 5	7 5	7 5	7 5	7 5	7 5 1/16	86.34.39	86.54.27	87.21.01	87.47.35	88.14.08	88.40.42	89.07.15	89.33.47	90.00.00	12"x7/8	12"x1 1/8
101	60 5 13/16	7 6 3/8	7 6 3/4	7 6 3/4	7 6 3/4	7 6 3/4	7 6 3/4	7 6 3/4	7 6 13/16	86.02.52	86.54.27	87.21.01	87.47.35	88.14.08	88.40.42	89.07.15	89.33.47	90.00.00	12"x7/8	12"x1 1/4
102	61 10 5/8	7 8 3/8	7 8 7/8	7 8 7/8	7 8 7/8	7 8 7/8	7 8 7/8	7 8 7/8	7 8 7/8	85.31.03	86.06.59	86.40.12	87.13.26	87.46.43	88.20.01	88.53.20	89.26.40	90.00.00	12"x1"	12"x1 1/4
103	62 10	7 10 1/4	7 10 1/4	7 10 1/4	7 10 1/4	7 10 1/4	7 10 1/4	7 10 1/4	7 10 1/4	85.11.30	86.06.59	86.40.12	87.13.26	87.46.43	88.20.01	88.53.20	89.26.40	90.00.00	12"x1"	2"x3/8



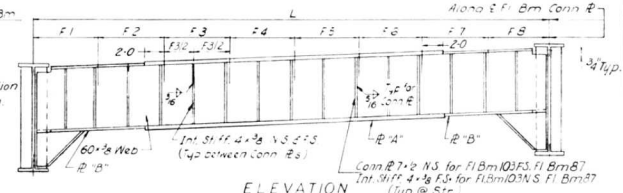
PLAN



PLAN - END FL. BM. 103

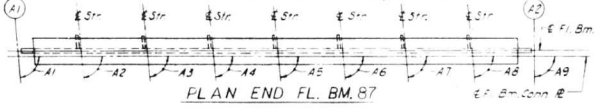


ELEVATION

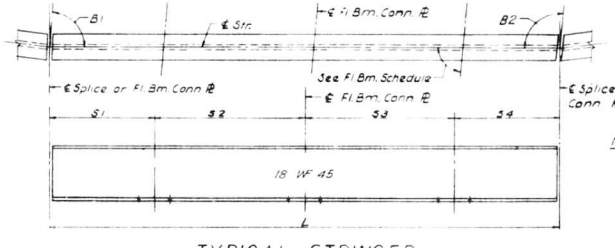


ELEVATION

INTERIOR FLOOR BEAM 88 THRU 102



PLAN END FL. BM. 87



TYPICAL STRINGER

END FLOOR BEAM 87 AND 103

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the table, except the increment lengths are given to the nearest 1/16".

All dimensions are in the horizontal plane.

For Intermediate Stiffener Brg. Stiffener and Connection Plate Details see Sh. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS A8 THRU A20
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF, B, E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 202 OF 526

DESIGNED BY A.T. & A.J.
DRAWN BY L.M.
CHECKED BY A.A.
APPROVED BY P.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVF&E-1	ST. CLAIR	247	73
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 88 THRU 90	T1	T2	T3	T4
STR. 161 THRU 174	1 3/16	5/8	1 1/4	11/16

FLOOR BEAM 91 THRU 93	T1		T3	T4
STR. 175 THRU 181	1 3/16	5/8	1 1/4	11/16

FLOOR BEAM 94 THRU 96	T1	T2	T3	T4
STR. 182 THRU 195	1 1/8	9/16	1 5/16	3/4

FLOOR BEAM 97	T1	T2	T3	T4
STR.				
196	15/16	3/8	1 1/2	15/16
197	1	7/16	1 7/16	7/8
198	1	7/16	1 7/16	7/8
199	1	7/16	1 7/16	7/8
200	1	1/2	1 3/8	7/8
201	1 1/16	1/2	1 3/8	13/16
202	1 1/16	1/2	1 3/8	13/16

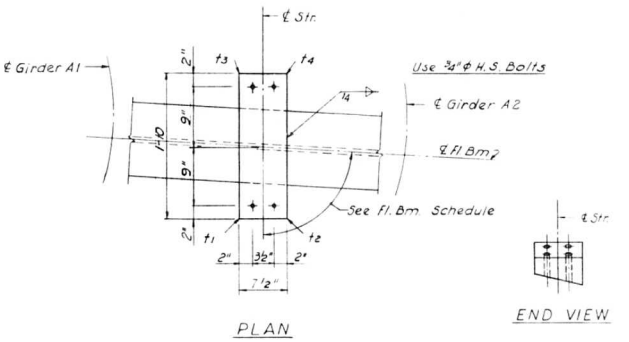
FLOOR BEAM 98	T1	T2	T3	T4
STR.				
196	15/16	7/16	1 7/16	15/16
197	15/16	7/16	1 7/16	15/16
198	1	7/16	1 7/16	7/8
199	1	1/2	1 3/8	7/8
200	1	1/2	1 3/8	7/8
201	1	1/2	1 3/8	7/8
202	1 1/16	1/2	1 3/8	13/16

FLOOR BEAM 99	T1	T2	T3	T4
STR.				
196	15/16	7/16	1 7/16	15/16
197	15/16	7/16	1 7/16	15/16
198	15/16	1/2	1 3/8	15/16
199	1	1/2	1 3/8	7/8
200	1	1/2	1 3/8	7/8
201	1	1/2	1 3/8	7/8
202	1	9/16	1 5/16	7/8

FLOOR BEAM 100	T1	T2	T3	T4
STR.				
203	7/8	7/16	1 7/16	1
204	7/8	7/16	1 7/16	1
205	7/8	7/16	1 7/16	1
206	7/8	7/16	1 7/16	1
207	7/8	7/16	1 7/16	1
208	7/8	7/16	1 7/16	1
209	15/16	7/16	1 7/16	15/16

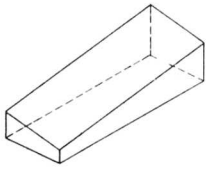
FLOOR BEAM 101	T1	T2	T3	T4
STR.				
203	7/8	7/16	1 7/16	1
204	7/8	7/16	1 7/16	1
205	7/8	7/16	1 7/16	1
206	7/8	7/16	1 7/16	1
207	7/8	7/16	1 7/16	1
208	7/8	7/16	1 7/16	1
209	7/8	1/2	1 3/8	1

FLOOR BEAM 102	T1	T2	T3	T4
STR.				
210	13/16	7/16	1 7/16	1 1/16
211	13/16	7/16	1 7/16	1 1/16
212	7/8	7/16	1 7/16	1
213	7/8	7/16	1 7/16	1
214	7/8	7/16	1 7/16	1
215	7/8	1/2	1 3/8	1
216	7/8	1/2	1 3/8	1

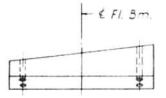


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A18 THRU A20

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

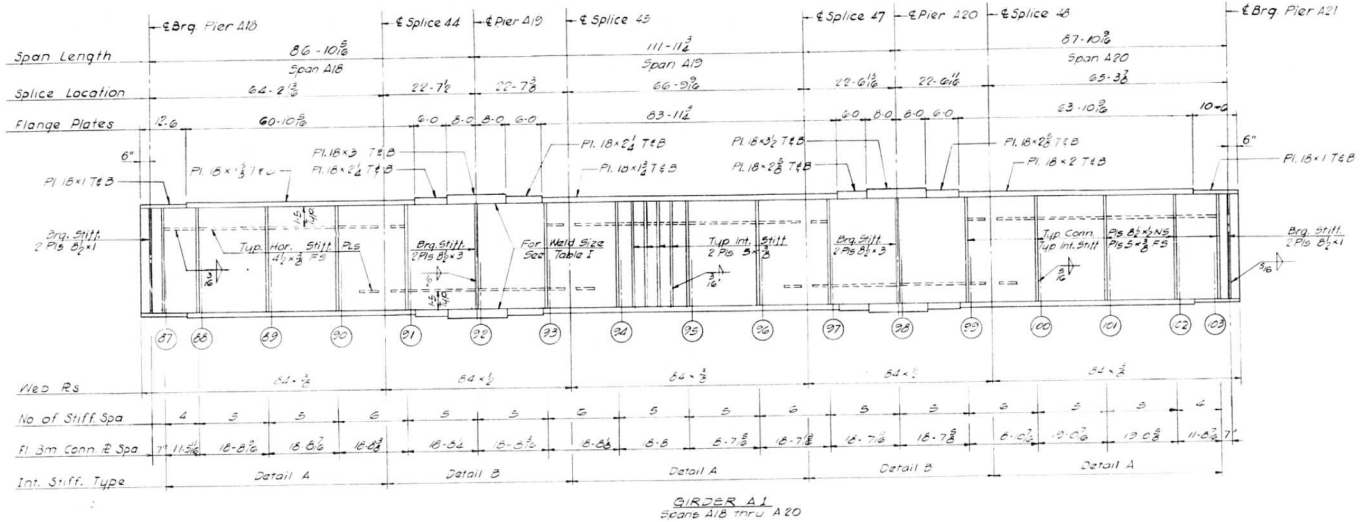
FAI RT 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

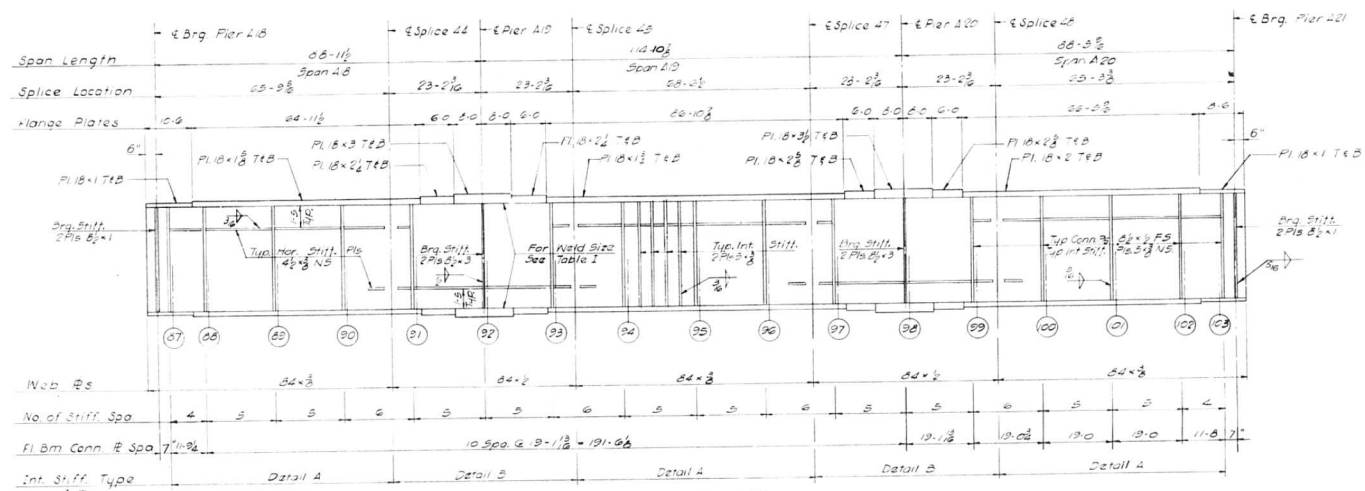
SHEET 203 of 526

DESIGNED BY A.J.C.
DRAWN BY E.M.
CHECKED BY A.S.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	74
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER A1
Spans A18 thru A20



GIRDER A2
Spans A18 thru A20

Notes:
All Longitudinal Dimensions Shown are given along ℄ of Web. See Sheet No. 201
All Bearing Stiffeners and Connection Plates to be Vertical.
For Splice, Stiffeners, Connection Plate Details and Table II see Sheet No. 348, 349, 350

DESIGNED BY A. T.
DRAWN BY D. T.
CHECKED BY E. L.
APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

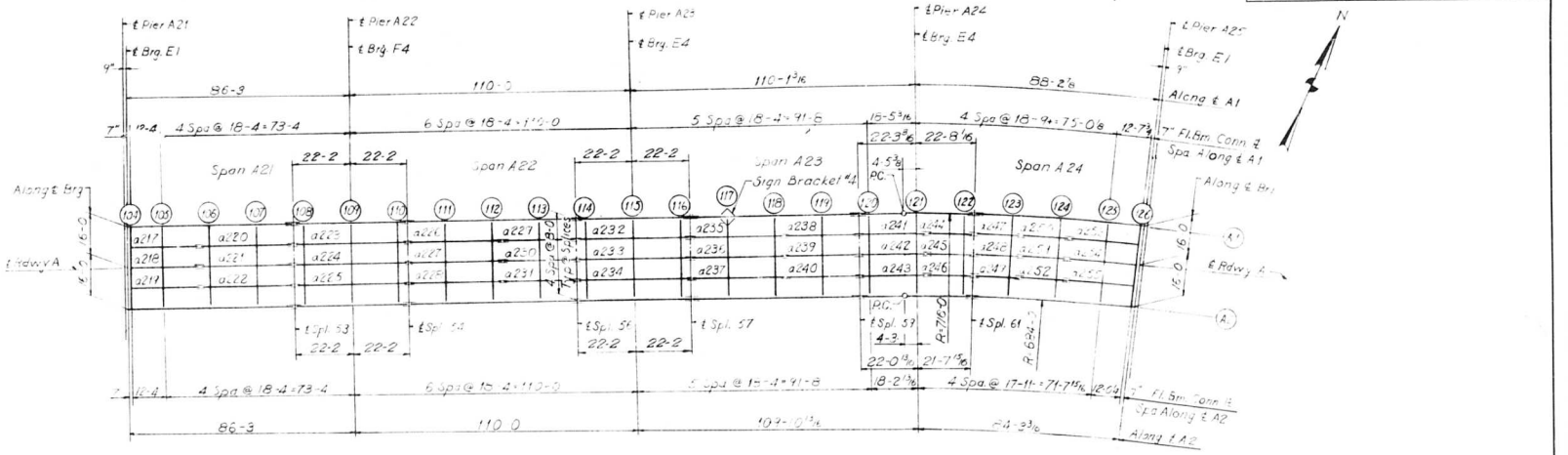
GIRDERS A1 AND A2
SPANS A18 THRU A20
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	75
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS A21 THRU A24

ELEVATION TOP OF GIRDER WEB

		GIR. A1	GIR. A2	DIFF.
CL. BRG.		455.341	456.457	1.116
FLOOR BEAM	104	455.361	456.471	1.110
FLOOR BEAM	105	455.789	456.784	.995
FLOOR BEAM	106	456.424	457.248	.824
FLOOR BEAM	107	457.060	457.712	.652
SPLICE	53	457.563	458.080	.517
FLOOR BEAM	108	457.696	458.177	.481
FLOOR BEAM	109	458.331	458.641	.310
FLOOR BEAM	110	458.967	459.106	.139
SPLICE	54	459.100	459.203	.103
FLOOR BEAM	111	459.603	459.570	.033
FLOOR BEAM	112	460.238	460.034	.204
FLOOR BEAM	113	460.874	460.498	.376
SPLICE	56	461.377	460.866	.511
FLOOR BEAM	114	461.510	460.963	.547
FLOOR BEAM	115	462.145	461.427	.718
FLOOR BEAM	116	462.781	461.892	.889

		GIR. A1	GIR. A2	DIFF.
SPLICE	57	462.914	461.989	.925
FLOOR BEAM	117	463.417	462.356	1.061
FLOOR BEAM	118	464.052	462.820	1.232
FLOOR BEAM	119	464.688	463.284	1.404
SPLICE	59	465.191	463.652	1.539
FLOOR BEAM	120	465.326	463.745	1.581
FLOOR BEAM	121	465.979	464.192	1.787
FLOOR BEAM	122	466.642	464.630	2.012
SPLICE	61	466.781	464.721	2.060
FLOOR BEAM	123	467.272	465.100	2.172
FLOOR BEAM	124	467.894	465.579	2.315
FLOOR BEAM	125	468.515	466.057	2.458
FLOOR BEAM	126	468.931	466.378	2.556
CL. BRG.		468.954	466.394	2.560

Note: Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see sketch Sheet No. 183. For Sign Bracket Detail, see Sh. No. 340.

BILL OF MATERIAL		
*Structural Steel	Lbs.	487,920

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 9620 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS A21 THRU A24
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

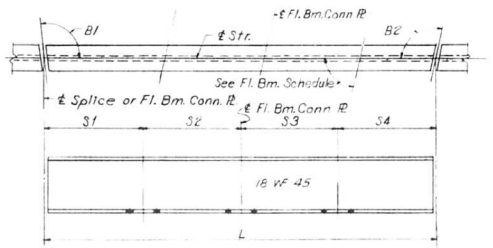
SHEET 205 OF 526

DESIGNED BY R.C.R.
DRAWN BY D.C.H.
CHECKED BY A.J.C.
APPROVED BY R.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVFBE-1	ST CLAIR	247	76
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

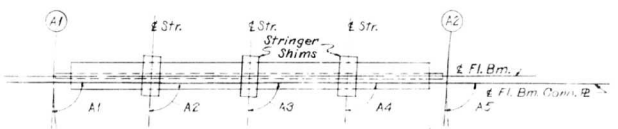
STR #	L	S1	S2	S3	S4	B1	B2
217	26-10"	12'-4"			14'-6"	90.00.00"	90.00.00"
218	26 10	12 4			14 6	90.00.00	90.00.00
219	26 10	12 4			14 6	90.00.00	90.00.00
220	36 8	3 10	18 4		14 6	90.00.00	90.00.00
221	36 8	3 10	18 4		14 6	90.00.00	90.00.00
222	36 8	3 10	18 4		14 6	90.00.00	90.00.00
223	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
224	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
225	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
226	36 8	14 6	18 4		3 10	90.00.00	90.00.00
227	36 8	14 6	18 4		3 10	90.00.00	90.00.00
228	36 8	14 6	18 4		3 10	90.00.00	90.00.00
229	29	14 6			14 6	90.00.00	90.00.00
230	29	14 6			14 6	90.00.00	90.00.00
231	29	14 6			14 6	90.00.00	90.00.00
232	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
233	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
234	44 4	3 10	18 4	18 4	3 10	90.00.00	90.00.00
235	36 8	14 6	18 4		3 10	90.00.00	90.00.00
236	36 8	14 6	18 4		3 10	90.00.00	90.00.00
237	36 8	14 6	18 4		3 10	90.00.00	90.00.00
238	29	14 6			14 6	90.00.00	90.00.00
239	29	14 6			14 6	90.00.00	90.00.00
240	29	14 6			14 6	90.00.00	90.00.00
241	25 1 1/8	3 10	18 4 5/8		3 10 1/2	90.06.22	90.33.49
242	26	3 10	18 4		3 10	90.06.19	90.33.52
243	25 10 7/8	3 10	18 3 3/8		3 9 1/2	90.06.16	90.33.55
244	18 6 1/2	14 8			3 10 1/2	90.45.01	90.45.01
245	18 4	14 6			3 10	90.45.01	90.45.01
246	18 1 1/2	14 4			3 9 1/2	90.45.01	90.45.01
247	18 6 1/2	14 8			3 10 1/2	90.45.01	90.45.01
248	18 4	14 6			3 10	90.45.01	90.45.01
249	18 1 1/2	14 4			3 9 1/2	90.45.01	90.45.01
250	18 6 1/2	14 8			3 10 1/2	90.45.01	90.45.01
251	18 4	14 6			3 10	90.45.01	90.45.01
252	18 1 1/2	14 4			3 9 1/2	90.45.01	90.45.01
253	27 1 13/16	14 8			12 5 7/8	91.09.56	91.12.24
254	26 10	14 6			12 4	91.09.53	91.12.26
255	26 6 1/8	14 4			12 2 7/8	91.09.51	91.12.29



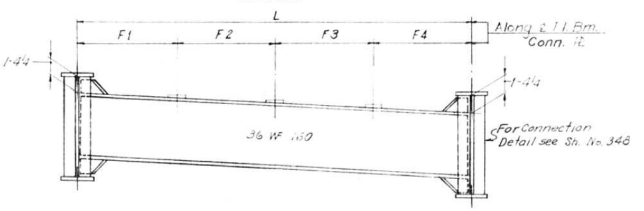
TYPICAL STRINGER

FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
104	32'-0"	8'-0"	8'-0"	8'-0"	8'-0"	90.00.00"	90.00.00"	90.00.00"	90.00.00"	90.00.00"
105	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
106	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
107	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
108	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
109	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
110	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
111	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
112	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
113	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
114	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
115	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
116	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
117	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
118	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
119	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
120	32	8 1/16	8	8	7 11 15/16	90.00.00	90.06.22	90.06.19	90.06.16	90.00.00
121	32	8 5/16	8	8	7 11 11/16	90.00.00	89.45.01	89.44.58	89.44.55	90.00.00
122	32	8 1/2	8	8	7 11 1/2	90.00.00	89.33.48	89.33.48	89.33.48	90.00.00
123	32	8 1/2	8	8	7 11 1/2	90.00.00	89.33.48	89.33.48	89.33.48	90.00.00
124	32	8 1/2	8	8	7 11 1/2	90.00.00	89.33.48	89.33.48	89.33.48	90.00.00
125	32	8 1 9/16	8	8	7 10 1/2	90.00.00	89.54.43	89.54.41	89.54.39	90.00.00
126	32	8	8	8	8	89.53.36	88.47.36	88.47.34	88.47.31	89.53.18

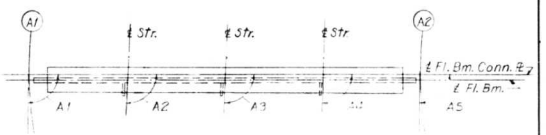


PLAN

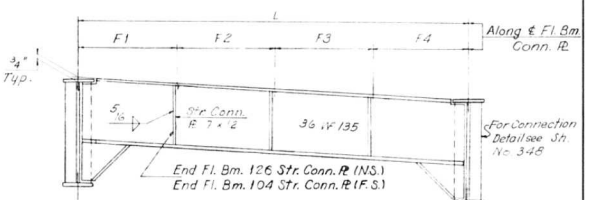


ELEVATION

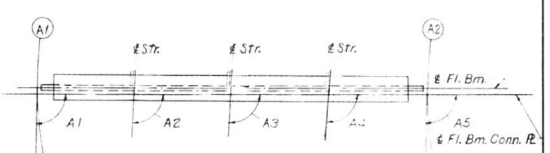
INTERIOR FLOOR BEAM 105 THRU 125



PLAN-END FL. BM. 126



ELEVATION



PLAN-END FL. BM. 104

END FLOOR BEAM 104 AND 126

Notes:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Details see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS A2 THRU A24
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 206 OF 526

DESIGNED BY A.L.E.A.I.C.
DRAWN BY D.C.H.
CHECKED BY A.A.
APPROVED BY A.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVFBE1	ST. CLAIR	647	77
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 105	T1	T2	T3	T4
STR.				
217	3/4	1/2	1 1/2	1 1/4
218	13/16	9/16	1 7/16	1 3/16
219	13/16	9/16	1 7/16	1 3/16

FLOOR BEAM 106	T1	T2	T3	T4
STR.				
220	3/4	9/16	1 7/16	1 1/4
221	3/4	9/16	1 7/16	1 1/4
222	13/16	5/8	1 3/8	1 3/16

FLOOR BEAM 107	T1	T2	T3	T4
STR.				
220	3/4	9/16	1 7/16	1 1/4
221	3/4	9/16	1 7/16	1 1/4
222	3/4	5/8	1 3/8	1 1/4

FLOOR BEAM 108	T1	T2	T3	T4
STR.				
223	11/16	9/16	1 7/16	1 5/16
224	3/4	5/8	1 3/8	1 1/4
225	3/4	5/8	1 3/8	1 1/4

FLOOR BEAM 109	T1	T2	T3	T4
STR.				
223	11/16	5/8	1 3/8	1 5/16
224	11/16	5/8	1 3/8	1 5/16
225	3/4	11/16	1 5/16	1 1/4

FLOOR BEAM 110	T1	T2	T3	T4
STR.				
223	11/16	5/8	1 3/8	1 5/16
224	11/16	5/8	1 3/8	1 5/16
225	11/16	11/16	1 5/16	1 5/16

FLOOR BEAM 111	T1	T2	T3	T4
STR.				
226	5/8	5/8	1 3/8	1 3/8
227	11/16	11/16	1 5/16	1 5/16
228	11/16	11/16	1 5/16	1 5/16

FLOOR BEAM 112	T1	T2	T3	T4
STR.				
226	5/8	11/16	1 5/16	1 3/8
227	5/8	11/16	1 5/16	1 3/8
228	11/16	3/4	1 1/4	1 5/16

FLOOR BEAM 113	T1	T2	T3	T4
STR.				
229	5/8	11/16	1 5/16	1 3/8
230	5/8	11/16	1 5/16	1 3/8
231	5/8	3/4	1 1/4	1 3/8

FLOOR BEAM 114	T1	T2	T3	T4
STR.				
232	9/16	11/16	1 5/16	1 7/16
233	5/8	3/4	1 1/4	1 3/8
234	5/8	3/4	1 1/4	1 3/8

FLOOR BEAM 115	T1	T2	T3	T4
STR.				
232	9/16	3/4	1 1/4	1 7/16
233	9/16	3/4	1 1/4	1 7/16
234	5/8	3/4	1 1/4	1 3/8

FLOOR BEAM 116	T1	T2	T3	T4
STR.				
232	9/16	3/4	1 1/4	1 7/16
233	9/16	3/4	1 1/4	1 7/16
234	9/16	13/16	1 3/16	1 7/16

FLOOR BEAM 117	T1	T2	T3	T4
STR.				
235	1/2	3/4	1 1/4	1 1/2
236	9/16	13/16	1 3/16	1 7/16
237	9/16	13/16	1 3/16	1 7/16

FLOOR BEAM 118	T1	T2	T3	T4
STR.				
235	1/2	13/16	1 3/16	1 1/2
236	1/2	13/16	1 3/16	1 1/2
237	9/16	13/16	1 3/16	1 7/16

FLOOR BEAM 119	T1	T2	T3	T4
STR.				
238	1/2	13/16	1 3/16	1 1/2
239	1/2	13/16	1 3/16	1 1/2
240	1/2	7/8	1 1/8	1 1/2

FLOOR BEAM 120	T1	T2	T3	T4
STR.				
241	7/16	13/16	1 3/16	1 9/16
242	1/2	7/8	1 1/8	1 1/2
243	1/2	7/8	1 1/8	1 1/2

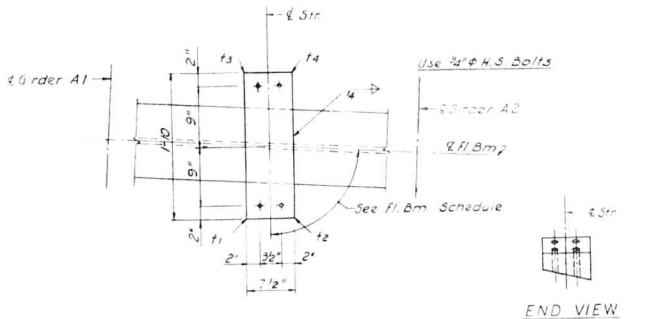
FLOOR BEAM 121	T1	T2	T3	T4
STR.				
241	7/16	7/8	1 1/8	1 9/16
242	7/16	7/8	1 1/8	1 9/16
243	1/2	15/16	1 1/16	1 1/2

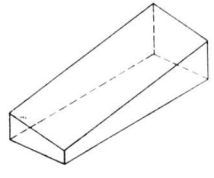
FLOOR BEAM 122	T1	T2	T3	T4
STR.				
244	3/8	7/8	1 1/8	1 5/8
245	7/16	7/8	1 1/8	1 9/16
246	7/16	15/16	1 1/16	1 9/16

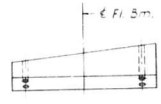
FLOOR BEAM 123	T1	T2	T3	T4
STR.				
247	3/8	15/16	1 1/16	1 5/8
248	7/16	15/16	1 1/16	1 9/16
249	7/16	15/16	1 1/16	1 9/16

FLOOR BEAM 124	T1	T2	T3	T4
STR.				
250	3/8	15/16	1 1/16	1 5/8
251	3/8	15/16	1 1/16	1 5/8
252	7/16	15/16	1 1/16	1 9/16

FLOOR BEAM 125	T1	T2	T3	T4
STR.				
253	3/8	15/16	1 1/16	1 5/8
254	3/8	15/16	1 1/16	1 5/8
255	3/8	1	1	1 5/8




ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS A21 THRU A24

POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

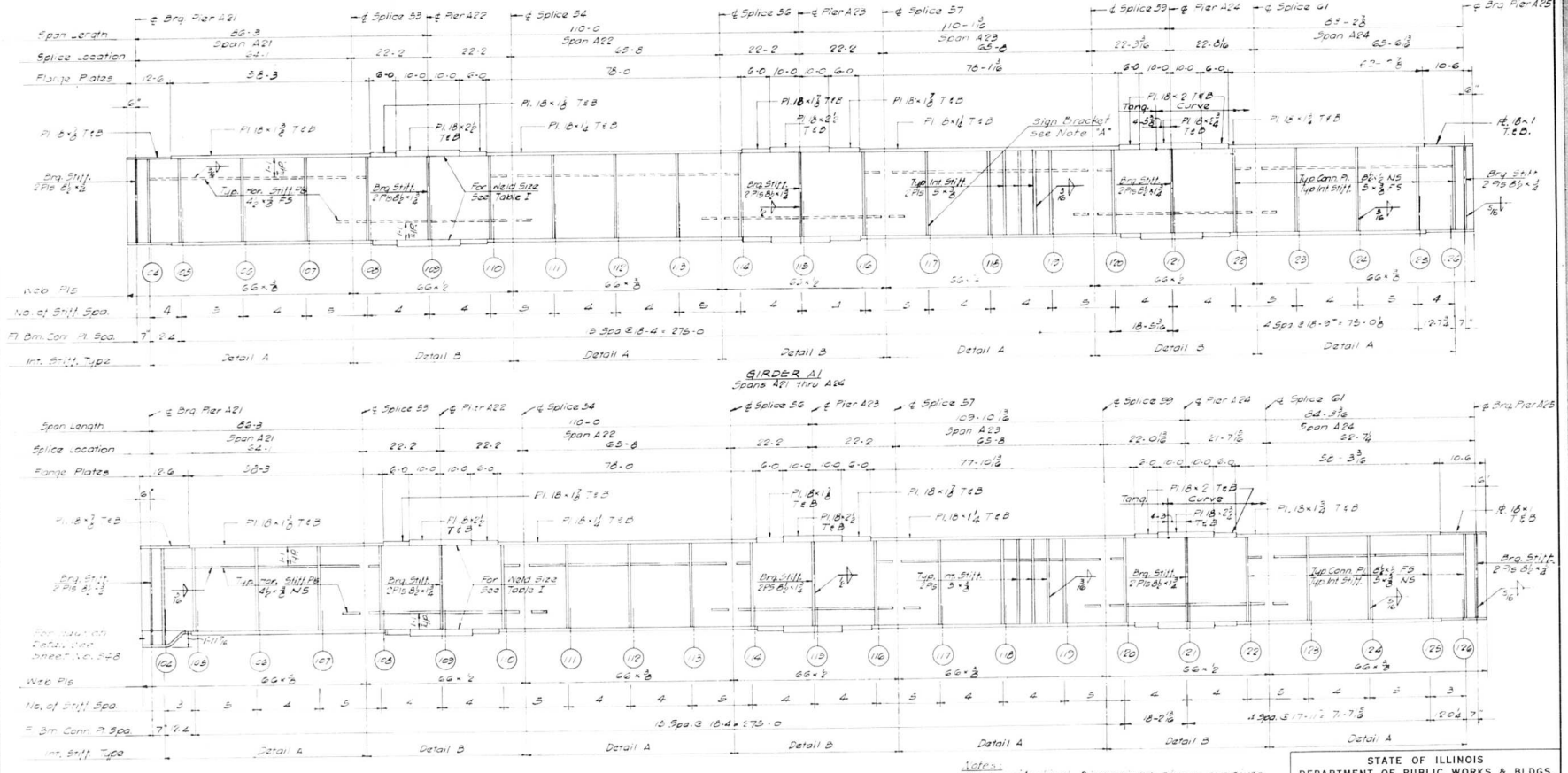
FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF B E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 207 of 526

DESIGNED BY A.J.C
DRAWN BY L.M
CHECKED BY A.S
APPROVED BY R.A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	78
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



Notes:
All Longitudinal Dimensions shown are given along ℄ of Reb. See Sheet No. 205
All Bearing Stiffeners and Connection Plates to be Vertical.
For Splice Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350
For Sign Bracket Detail see Sheet No. 360.

Note "A"
Intermediate Stiffeners should be moved if necessary to Clear Sign Bracket Connection plates.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS A1 AND A2
SPANS A21 THRU A24
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

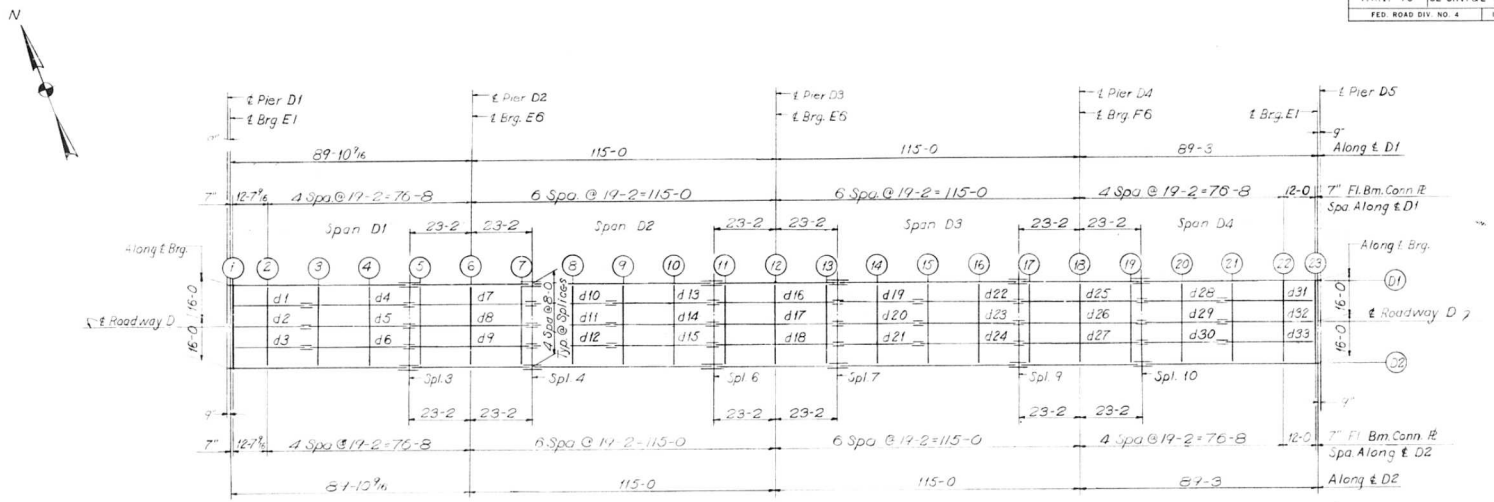
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 208 OF 526

DESIGNED BY A.T.
DRAWN BY T.
CHECKED BY B.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-I	ST. CLAIR	247	75
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS D1 THRU D4

ELEVATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	DIFF.
CL. BRG.		450.780	450.281	.499
FLOOR BEAM	1	450.764	450.265	.499
FLOOR BEAM	2	450.418	449.919	.499
FLOOR BEAM	3	449.893	449.393	.500
FLOOR BEAM	4	449.367	448.868	.499
SPLICE	3	448.952	448.452	.500
FLOOR BEAM	5	448.862	448.363	.499
FLOOR BEAM	6	448.433	447.934	.499
FLOOR BEAM	7	448.004	447.505	.499
SPLICE	4	447.915	447.416	.499
FLOOR BEAM	8	447.653	447.154	.499
FLOOR BEAM	9	447.322	446.823	.499
FLOOR BEAM	10	446.992	446.492	.500
SPLICE	6	446.730	446.231	.499
FLOOR BEAM	11	446.681	446.182	.499
FLOOR BEAM	12	446.448	445.949	.499

		GIR. D1	GIR. D2	DIFF
FLOOR BEAM	13	446.216	445.717	.499
SPLICE	7	446.167	445.668	.499
FLOOR BEAM	14	446.061	445.561	.500
FLOOR BEAM	15	445.926	445.427	.499
FLOOR BEAM	16	445.791	445.292	.499
SPLICE	9	445.685	445.186	.499
FLOOR BEAM	17	445.677	445.178	.499
FLOOR BEAM	18	445.641	445.142	.499
FLOOR BEAM	19	445.604	445.105	.499
SPLICE	10	445.597	445.097	.500
FLOOR BEAM	20	445.642	445.143	.499
FLOOR BEAM	21	445.700	445.201	.499
FLOOR BEAM	22	445.757	445.258	.499
FLOOR BEAM	23	445.783	445.294	.499
CL. BRG.		445.795	445.296	.499

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. See Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	468,170

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 10,910 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS D1 THRU D4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-I
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS
SHEET 30 OF 526

DESIGNED BY R.M.R.
DRAWN BY D.K.H.
CHECKED BY A.J.S.
APPROVED BY K.A.

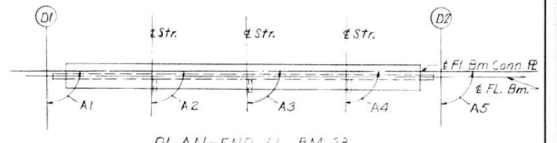
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I – 7 0	82-3HVFBE(	ST. CLAIR	247	80
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

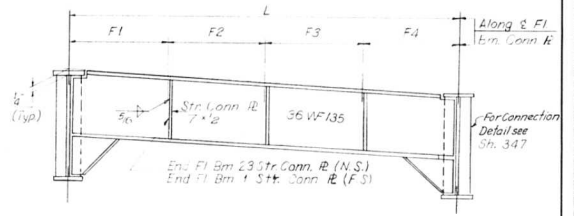
STR'd	L	S1	S2	S3	S4	B1	B2
1	27'- 9 9/16"	2 7 9/16			15- 2	90°00'00"	90°00'00"
2	27 9 9/16	2 7 9/16			15 2	90.00.00	90.00.00
3	27 9 9/16	2 7 9/16			15 2	90.00.00	90.00.00
4	38 4	4	19 2		15 2	90.00.00	90.00.00
5	38 4	4	19 2		15 2	90.00.00	90.00.00
6	38 4	4	19 2		15 2	90.00.00	90.00.00
7	46 4	4	19 2	19 2	4	90.00.00	90.00.00
8	46 4	4	19 2	19 2	4	90.00.00	90.00.00
9	46 4	4	19 2	19 2	4	90.00.00	90.00.00
10	30 4	15 2			15 2	90.00.00	90.00.00
11	30 4	15 2			15 2	90.00.00	90.00.00
12	30 4	15 2			15 2	90.00.00	90.00.00
13	38 4	4	19 2		15 2	90.00.00	90.00.00
14	38 4	4	19 2		15 2	90.00.00	90.00.00
15	38 4	4	19 2		15 2	90.00.00	90.00.00
16	46 4	4	19 2	19 2	4	90.00.00	90.00.00
17	46 4	4	19 2	19 2	4	90.00.00	90.00.00
18	46 4	4	19 2	19 2	4	90.00.00	90.00.00
19	30 4	15 2			15 2	90.00.00	90.00.00
20	30 4	15 2			15 2	90.00.00	90.00.00
21	30 4	15 2			15 2	90.00.00	90.00.00
22	38 4	4	19 2		15 2	90.00.00	90.00.00
23	38 4	4	19 2		15 2	90.00.00	90.00.00
24	38 4	4	19 2		15 2	90.00.00	90.00.00
25	46 4	4	19 2	19 2	4	90.00.00	90.00.00
26	46 4	4	19 2	19 2	4	90.00.00	90.00.00
27	46 4	4	19 2	19 2	4	90.00.00	90.00.00
28	30 4	15 2			15 2	90.00.00	90.00.00
29	30 4	15 2			15 2	90.00.00	90.00.00
30	30 4	15 2			15 2	90.00.00	90.00.00
31	35 2	4	19 2		12	90.00.00	90.00.00
32	35 2	4	19 2		12	90.00.00	90.00.00
33	35 2	4	19 2		12	90.00.00	90.00.00

FLOOR BEAM DIMENSIONS

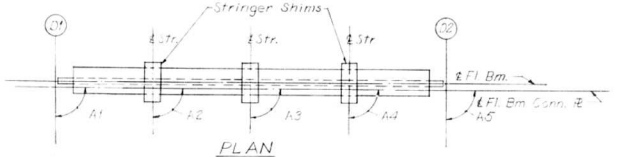
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
1	32'- 4"	8'-0"	8'-0"	8'-0"	8'-0"	90.00.00"	90.00.00"	90.00.00"	90.00.00"	90.00.00"
2	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
3	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
4	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
5	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
6	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
7	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
8	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
9	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
10	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
11	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
12	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
13	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
14	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
15	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
16	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
17	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
18	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
19	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
20	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
21	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
22	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
23	32	8	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00



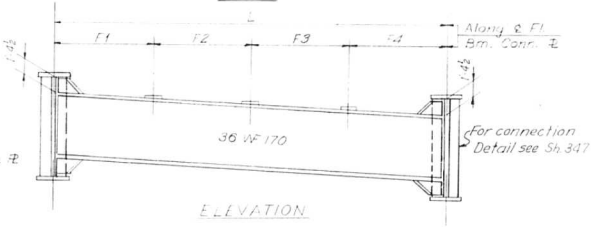
PLAN - END FL. BM 23



ELEVATION

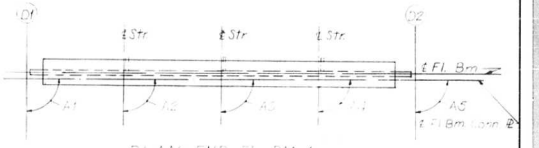


PLAN



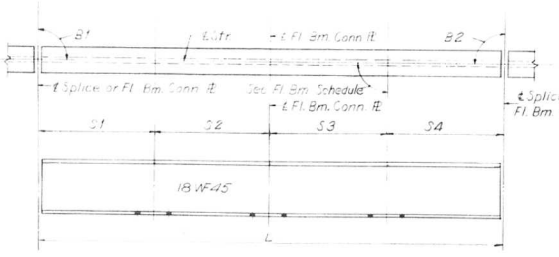
ELEVATION

INTERIOR FLOOR BEAM 2 THRU 22



PLAN - END FL. BM. 1

END FLOOR BEAM 1 AND 23



TYPICAL STRINGER

Notes:
Length L of Stringers and Fl. Bms to connect as given in the table except the increment lengths are given to the nearest ½".
All dimensions are in the horizontal plane.
For Connection Plate details see Sheet No. 348

DESIGNED BY A.T.C.A.J.C
DRAWN BY D.G.H.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D1 THRU D4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE(
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS
SHEET 210 OF 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I-70	82-3HVF & E-1	ST. CLAIR	247	51
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 2 THRU 4	T1	T2	T3	T4
STR. 1 THRU 6	1	1 1/8	3/8	1/2

FLOOR BEAM 5 THRU 7	T1	T2	T3	T4
STR. 7 THRU 9	15/16	1 1/16	7/16	9/16

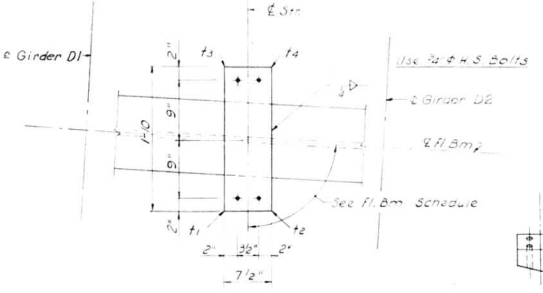
FLOOR BEAM 8 THRU 10	T1	T2	T3	T4
STR. 10 THRU 15	7/8	1	1/2	5/8

FLOOR BEAM 11 THRU 13	T1	T2	T3	T4
STR. 16 THRU 18	13/16	15/16	9/16	11/16

FLOOR BEAM 14 THRU 16	T1	T2	T3	T4
STR. 19 THRU 24	3/4	7/8	5/8	3/4

FLOOR BEAM 17 THRU 19	T1	T2	T3	T4
STR. 25 THRU 27	11/16	13/16	11/16	13/16

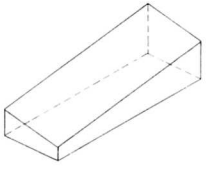
FLOOR BEAM 20 THRU 22	T1	T2	T3	T4
STR. 28 THRU 33	11/16	3/4	3/4	13/16



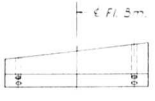
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A. J. C.
DRAWN BY J. C. H.
CHECKED BY A. S.
APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

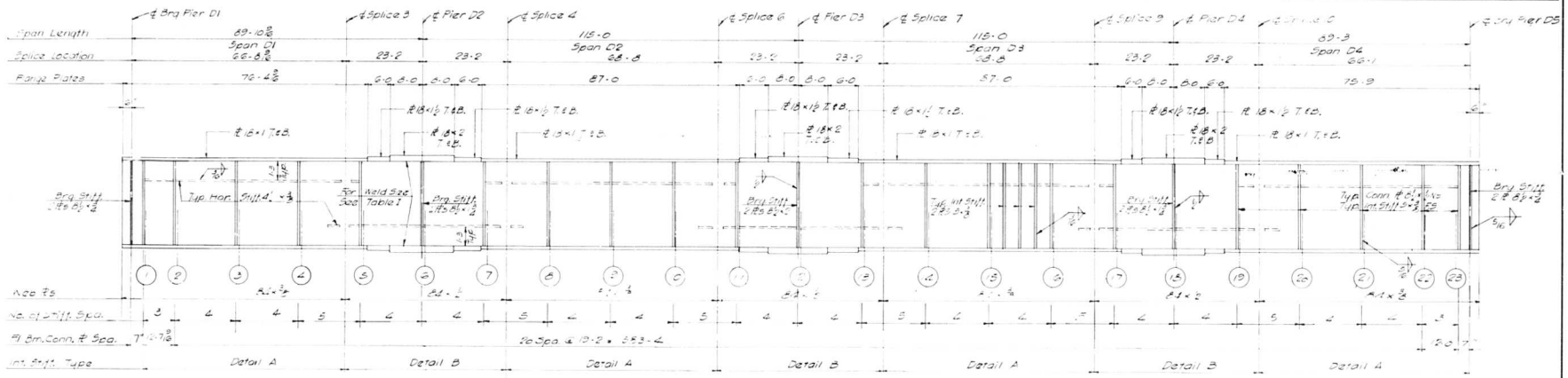
STRINGER SHIMS
SPANS D1 THRU D4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

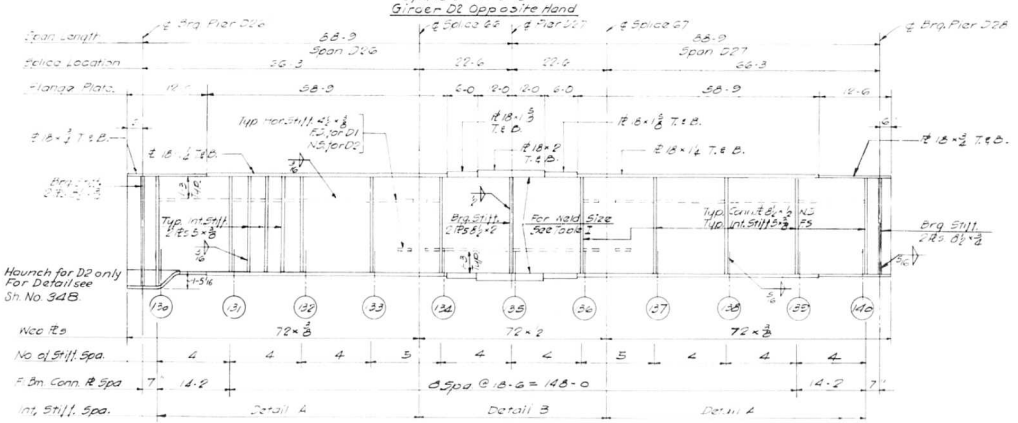
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
211 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-I	ST. CLAIR	247	82
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



GIRDER D1
Spans D1 thru D4
Girder D2 Opposite Hand



GIRDER D1
Spans D26 & D27
Girder D2 Opposite Hand

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. Nos. 209 and 240.

All Bearing Stiffeners and Connection Plates are to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I. See Sh. Nos. 348, 349 and 350.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

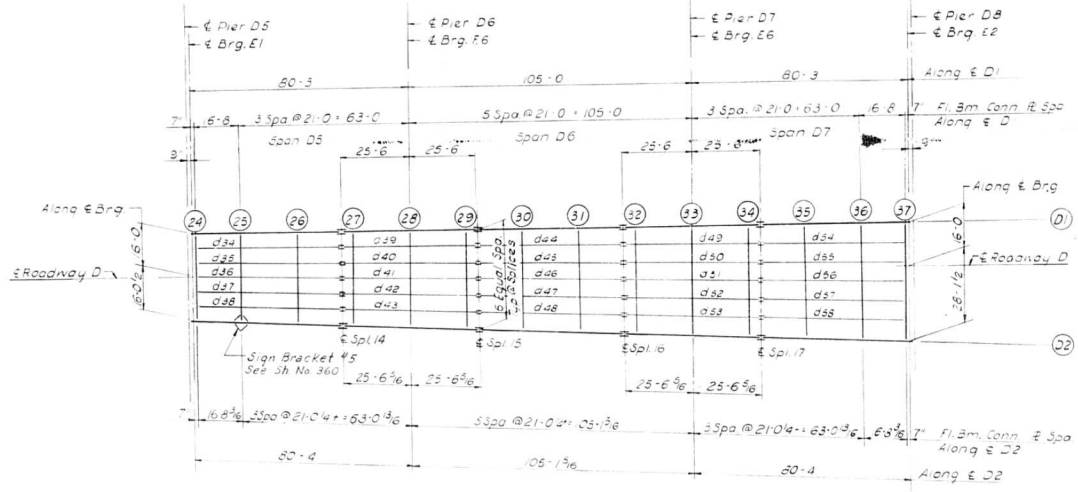
GIRDERS D1 AND D2
SPANS D1 THRU D4, D26 & D27
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 226 OF 526

DESIGNED BY A.T.
DRAWN BY A.T.
CHECKED BY E.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	83
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D5 THRU D7

ELEVATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	DIFF.
CL. BRG.		445.803	445.303	.500
FLOOR BEAM	24	445.806	445.305	.501
FLOOR BEAM	25	445.889	445.377	.512
FLOOR BEAM	26	445.994	445.467	.527
SPLICE	14	446.076	445.538	.538
FLOOR BEAM	27	446.099	445.557	.541
FLOOR BEAM	28	446.204	445.647	.557
FLOOR BEAM	29	446.309	445.737	.571
SPLICE	15	446.331	445.756	.575
FLOOR BEAM	30	446.414	445.827	.587
FLOOR BEAM	31	446.519	445.917	.602
SPLICE	16	446.601	445.988	.613
FLOOR BEAM	32	446.622	446.010	.612
FLOOR BEAM	33	446.717	446.112	.605
FLOOR BEAM	34	446.813	446.214	.598
SPLICE	17	446.833	446.236	.597
FLOOR BEAM	35	446.806	446.453	.353
FLOOR BEAM	36	446.771	446.729	.042
FLOOR BEAM	37	446.743	446.948	.205
CL. BRG.		446.742	446.955	.213

BILL OF MATERIAL		
*Structural Steel	Lbs.	337,160

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 8,530 Lbs.

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No 183

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D5 THRU D7

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 213 OF 326

NED BY P.M.R.
N BY J.M.
KED BY A.J.C.
OVED BY K.A.

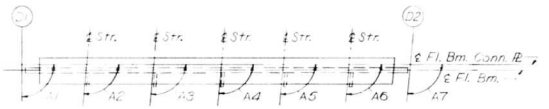
FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
FAI 70	82-3HVFBE	ST. CLAIR	247	5-
FED. ROAD DIV. No. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

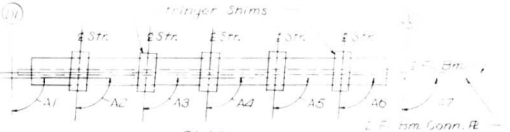
STR'd	L	S1	S2	S3	S4	B1	B2
34	54 2 "	16 8 "	O	21 0"	16 6 "	90.26.05"	89.33.55"
35	54 2 1/16	16 8		21	16 6	90.52.10	89.07.50
36	54 2 3/16	16 8 1/16		21 1/16	16 6 1/16	91.18.14	88.41.46
37	54 2 5/16	16 8 1/16		21 1/8	16 6 1/16	91.44.18	88.15.42
38	54 2 7/16	16 8 1/8	O	21 3/16	16 6 1/8	92.10.21	87.49.39
39	51	4 6	21	21	4 6	90.26.05	89.33.55
40	51 1/16	4 6	21	21	4 6	90.52.10	89.07.50
41	51 3/16	4 6	21 1/16	21 1/16	4 6	91.18.14	88.41.46
42	51 5/16	4 6	21 1/8	21 1/8	4 6	91.44.18	88.15.42
43	51 7/16	4 6 1/16	21 3/16	21 3/16	4 6 1/16	92.10.21	87.49.39
44	54	16 6	21		16 6	90.26.05	89.33.55
45	54 1/16	16 6	21		16 6	90.52.10	89.07.50
46	54 3/16	16 6 1/16	21 1/16		16 6 1/16	91.18.14	88.41.46
47	54 5/16	16 6 1/16	21 1/8		16 6 1/16	91.44.18	88.15.42
48	54 7/16	16 6 1/8	21 3/16		16 6 1/8	92.10.21	87.49.39
49	51	4 6	21	21	4 6	90.26.05	89.33.55
50	51 1/16	4 6	21	21	4 6	90.52.10	89.07.50
51	51 3/16	4 6	21 1/16	21 1/16	4 6	91.18.14	88.41.46
52	51 5/16	4 6	21 1/8	21 1/8	4 6	91.44.18	88.15.42
53	51 7/16	4 6 1/16	21 3/16	21 3/16	4 6 1/16	92.10.21	87.49.39
54	54 2	16 6	21	O	16 6	90.26.05	89.33.55
55	54 2 1/16	16 6	21		16 8	90.52.10	89.07.50
56	54 2 3/16	16 6 1/16	21 1/16		16 8 1/16	91.18.14	88.41.46
57	54 2 5/16	16 6 1/16	21 1/8		16 8 1/16	91.44.18	88.15.42
58	54 2 7/16	16 6 1/8	21 3/16		16 8 1/16	92.10.21	87.49.39

FLOOR BEAM DIMENSIONS

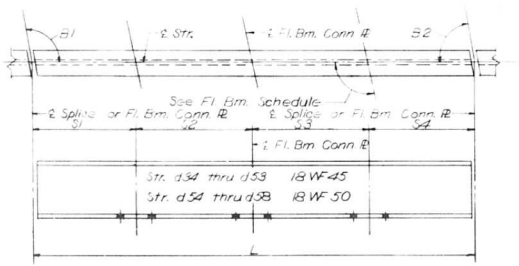
FL BM	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7	PLATE A T x B	PLATE B T x B
24	32' - 13/16"	5'-4 1/8"	5'-4 1/8"	5'-4 1/8"	5'-4 1/8"	5'-4 1/8"	5'-4 1/8"	90.00.00"	90.26.05"	90.52.10"	91.18.14"	91.44.18"	92.10.21"	92.36.23	12 x 1	12 x 3/4
25	32 9 15/16	5 5 5/8	5 5 5/8	5 5 5/8	5 5 5/8	5 5 5/8	5 5 5/8	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1	12 x 3/4
26	33 9 3/8	5 7 9/16	5 7 9/16	5 7 9/16	5 7 9/16	5 7 9/16	5 7 9/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/8	12 x 3/8
27	34 8 7/8	5 9 1/2	5 9 1/2	5 9 1/2	5 9 1/2	5 9 1/2	5 9 1/2	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/8	12 x 3/8
28	35 8 5/16	5 11 3/8	5 11 3/8	5 11 3/8	5 11 3/8	5 11 3/8	5 11 3/8	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/8	12 x 3/8
29	36 7 13/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/4	12 x 1
30	37 7 1/4	6 3 3/16	6 3 3/16	6 3 3/16	6 3 3/16	6 3 3/16	6 3 3/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/4	12 x 1
31	38 6 3/4	6 5 1/8	6 5 1/8	6 5 1/8	6 5 1/8	6 5 1/8	6 5 1/8	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 3/8	12 x 1/8
32	39 6 3/16	6 7 1/16	6 7 1/16	6 7 1/16	6 7 1/16	6 7 1/16	6 7 1/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 3/8	12 x 1/8
33	40 5 11/16	6 8 15/16	6 8 15/16	6 8 15/16	6 8 15/16	6 8 15/16	6 8 15/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1/4
34	41 5 1/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	6 10 7/8	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 1/2	12 x 1/4
35	42 4 5/8	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	7 3/4	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 5/8	12 x 1/4
36	43 4 1/8	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 5/8	12 x 1/4
37	44 1 3/16	7 4 3/16	7 4 3/16	7 4 3/16	7 4 3/16	7 4 3/16	7 4 3/16	90.00.00	90.26.05	90.52.10	91.18.14	91.44.18	92.10.21	92.36.23	12 x 1 3/4	12 x 1



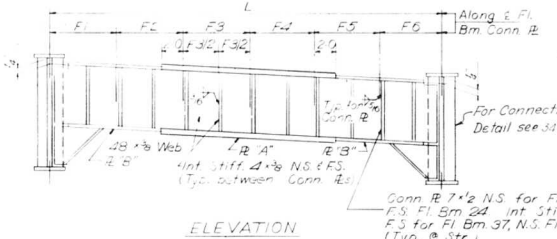
PLAN-END FL. BM. 37



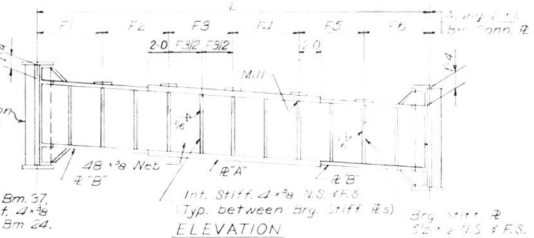
PLAN



TYPICAL STRINGER

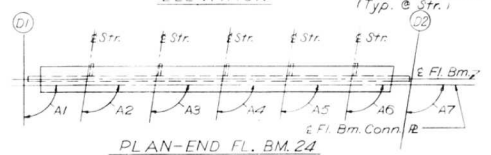


ELEVATION



ELEVATION

INTERIOR FLOOR BEAM 25 THRU 36



PLAN-END FL. BM. 24

END FLOOR BEAM 24 AND 37

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "16".

All dimensions are in the horizontal plane.

For intermediate Stiffner, Brg. Stiffener and Connection Plate Details see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D5 THRU D7
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-D

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 214 OF 526

DESIGNED BY A.T. & A.J.C.
DRAWN BY DCH
CHECKED BY A.A.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70	82-3HVF8E-1	ST CLAIR	247	85
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLR. BM. 25 THRU 26	T1	T2	T3	T4
STR. 34 THRU 38	3/8	1/2	1/2	5/8

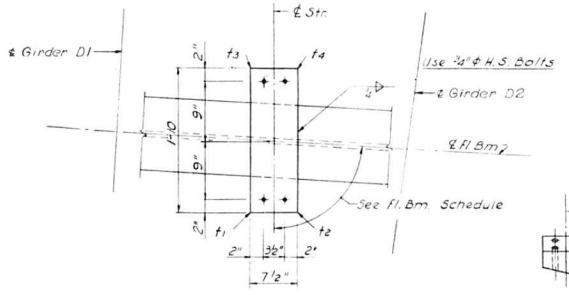
FLOOR BEAM 27 THRU 29	T1	T2	T3	T4
STR. 39 THRU 43	3/8	1/2	1/2	5/8

FLOOR BEAM 30 THRU 31	T1	T2	T3	T4
STR. 44 THRU 48	3/8	1/2	1/2	5/8

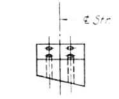
FLOOR BEAM 32 THRU 34	T1	T2	T3	T4
STR. 49 THRU 53	3/8	1/2	1/2	5/8

FLOOR BEAM 35	T1	T2	T3	T4
STR.				
54	7/16	1/2	1/2	9/16
55	7/16	1/2	1/2	9/16
56	3/8	7/16	9/16	5/8
57	3/8	7/16	9/16	5/8
58	3/8	7/16	9/16	5/8

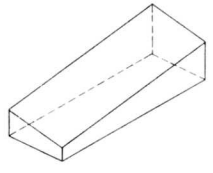
FLOOR BEAM 36	T1	T2	T3	T4
STR.				
54	1/2	1/2	1/2	1/2
55	7/16	7/16	9/16	9/16
56	7/16	7/16	9/16	9/16
57	3/8	7/16	9/16	5/8
58	3/8	3/8	5/8	5/8



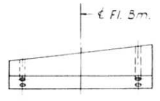
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C.
DRAWN BY D.G.H.
CHECKED BY A.S.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

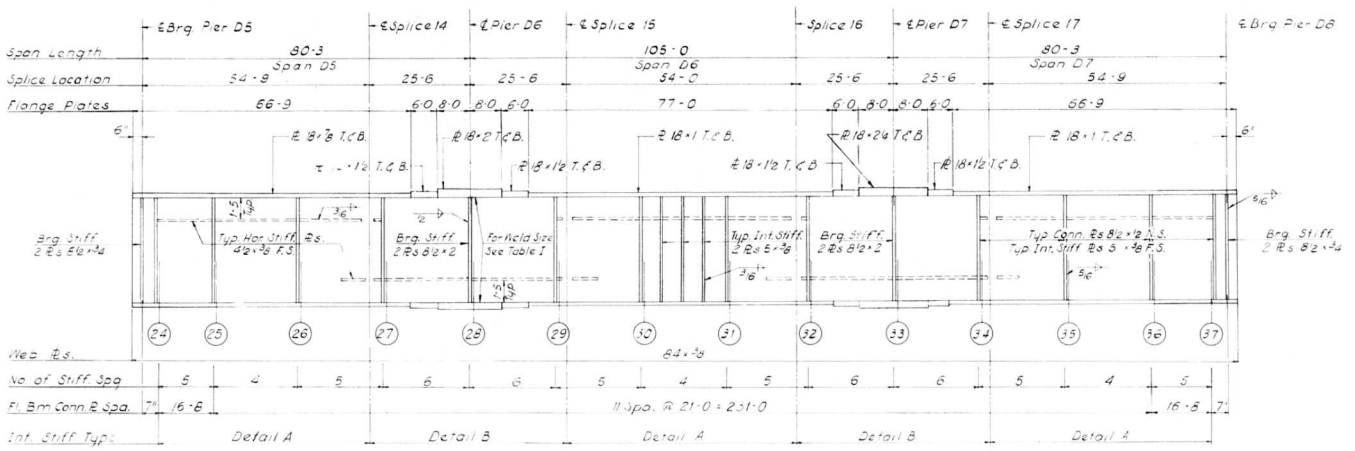
STRINGER SHIMS
SPANS D5 THRU D7
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF8E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

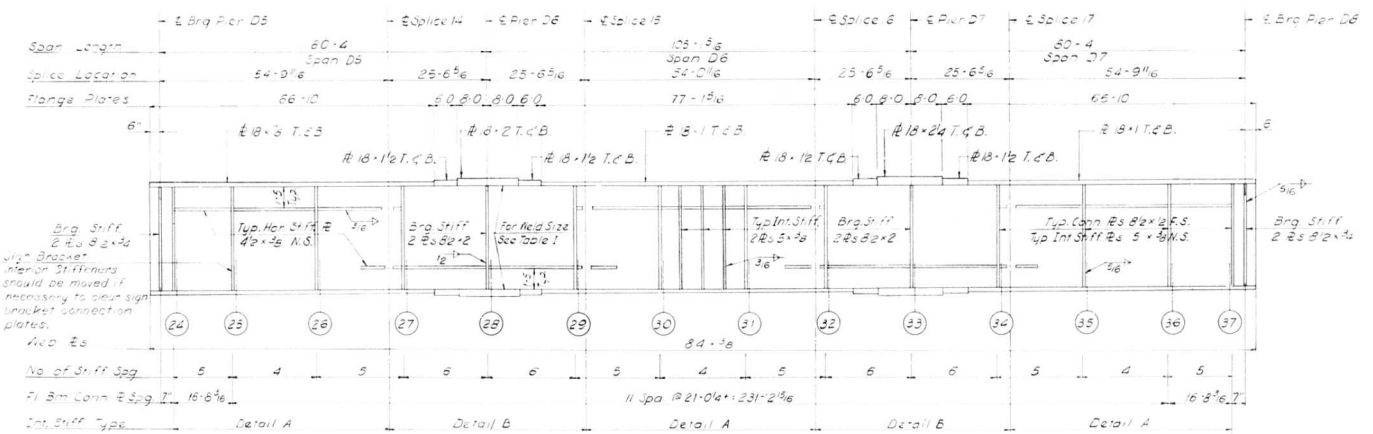
SHEET
215 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	86
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1

SPANS D5 THRU D7



GIRDER D2

SPANS D5 THRU D7

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 213.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I. See Sh. Nos. 348, 349 and 350.

For Sign Bracket Detail see Sh. No. 360.

DESIGNED BY A.T.
DRAWN BY I.M.
CHECKED BY E.L.
APPROVED BY K.A.

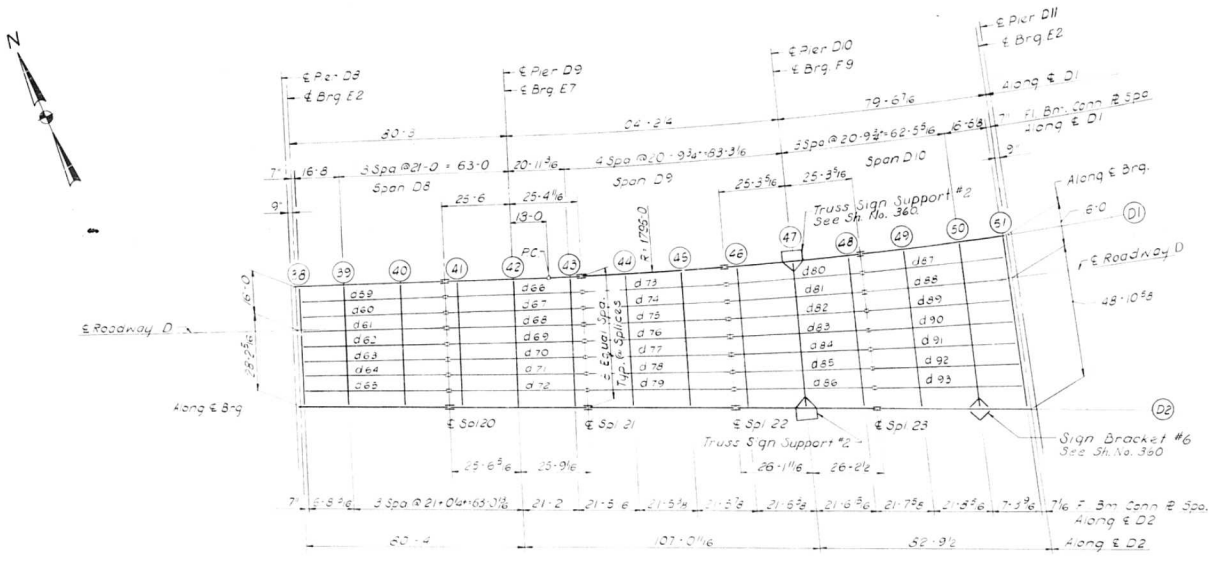
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D5 THRU D7
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 246 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	187
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



PLAN

SPANS D8 THRU D10

ELEVATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	DIFF.
CL. BRG.		446.740	446.976	.236
FLOOR BEAM	38	446.738	446.984	.245
FLOOR BEAM	39	446.711	447.220	.509
FLOOR BEAM	40	446.676	447.517	.841
SPLICE	20	446.649	447.750	1.101
FLOOR BEAM	41	446.641	447.818	1.177
FLOOR BEAM	42	446.606	448.135	1.529
FLOOR BEAM	43	446.571	448.454	1.883
SPLICE	21	446.564	448.523	1.959
FLOOR BEAM	44	446.536	448.800	2.264
FLOOR BEAM	45	446.501	449.154	2.653
SPLICE	22	446.473	449.433	2.960
FLOOR BEAM	46	446.490	449.447	2.957
FLOOR BEAM	47	446.568	449.510	2.942
FLOOR BEAM	48	446.645	449.573	2.928
SPLICE	23	446.662	449.586	2.924
FLOOR BEAM	49	446.744	449.568	2.824
FLOOR BEAM	50	446.849	449.544	2.695
FLOOR BEAM	51	446.933	449.525	2.592
CL. BRG.		446.936	449.524	2.588

Note:

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	489,600

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are included as Structural Steel Est. Wt. 11,170 Lbs.

DESIGNED BY P.M.R.
DRAWN BY I.M.
CHECKED BY A.J.C.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D8 THRU D10

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 217 OF 525

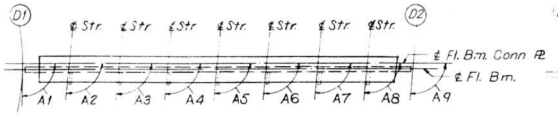
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 7 0	82-3HVF&E(	ST. CLAIR	247	88
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

STRINGER DIMENSIONS

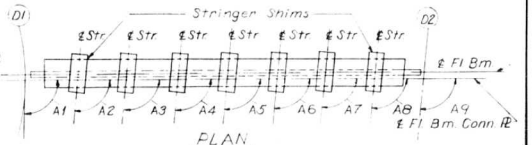
STR#	L	S1	S2	S3	S4	B1	B2
59	54'-2"	16'-8"		21'-6"	16'-6"	90.19.34	89.40.26
60	54 2 1/16	16 8		21	16 6	90.39.07	89.20.53
61	54 2 1/8	16 8		21 1/16	16 6	90.58.41	89.01.19
62	54 2 3/16	16 8 1/16		21 1/16	16 6 1/16	91.18.14	88.41.46
63	54 2 1/4	16 8 1/16		21 1/8	16 6 1/16	91.37.47	88.22.13
64	54 2 3/8	16 8 1/8		21 1/8	/8	91.57.19	88.02.41
65	54 2 1/2	16 8 1/8		21 3/16	16 6 3/16	92.16.51	87.43.09
66	50 11 3/16	4 6	21	20 11 1/2	4 5 11/16	90.17.09	89.19.08
67	50 11 3/4	4 6	21	20 11 13/16	4 5 7/8	90.37.09	88.59.08
68	51 5/16	4 6	21 1/16	21 3/16	4 6 1/16	90.57.07	88.39.10
69	51 7/8	4 6	21 1/16	21 1/2	4 6 1/4	91.17.03	88.19.14
70	51 1 7/16	4 6	21 1/8	21 7/8	4 6 7/16	91.36.57	87.59.20
71	51 2 1/16	4 6	21 1/8	21 1 1/4	4 6 11/16	91.56.48	87.39.29
72	51 2 11/16	4 6 1/16	21	21 3/16	21 1 5/8	4 6 7/8	92.16.37
73	53 8 9/16	16 4 15/16	20 10 5/8		16 5		89.38.27
74	53 10 7/8	16 5 5/8	20 11 9/16		16 5 3/4		90.07.55
75	54 1 5/16	16 6 5/16	21 1/2		16 6 1/2		90.37.09
76	54 2 3/4	16 7	21 1 7/16		16 7 5/16		91.06.11
77	54 6 1/4	16 7 3/4	21 2 3/8		16 8 1/16		91.35.00
78	54 8 3/4	16 8 1/2	21 3 3/8		16 8 7/8		92.03.35
79	54 11 5/16	16 9 1/4	21 4 3/8		16 9 3/4		92.31.57
80	50 8 15/16	4 5 3/4	20 10 11/16	20 10 3/4	4 5 3/4		89.54.14
81	50 11 7/16	4 5 15/16	20 11 11/16	20 11 13/16	4 6		90.36.30
82	51 2	4 6 1/8	21 11/16	21 15/16	4 6 1/4		91.18.25
83	51 4 5/8	4 6 3/8	21 1 3/4	21 2 1/16	4 6 1/2		91.59.59
84	51 7 3/8	4 6 9/16	21 2 7/8	21 3 1/4	4 6 3/4		92.41.11
85	51 10 1/4	4 6 13/16	21 4	21 4 7/16	4 7		93.22.01
86	52 1 1/8	4 7 1/16	21 5 3/16	21 5 11/16	4 7 5/16		94.02.28
87	53 11	16 5 1/16	20 10 7/8		16 7 1/16		90.04.24
88	54 2 1/16	16 5 7/8	21		16 8 1/8		90.59.39
89	54 5 5/16	16 6 13/16	21 1 1/4		16 9 1/4		91.54.22
90	54 8 3/4	16 7 3/4	21 2 1/2		16 10 7/16		92.48.32
91	55 5/16	16 8 3/4	21 3 7/8		16 11 5/8		93.42.07
92	55 4	16 9 13/16	21 5 5/16		17 15/16		94.35.07
93	55 7 7/8	16 10 7/8	21 6 3/4		17 2 1/4		95.27.31

FLOOR BEAM DIMENSIONS

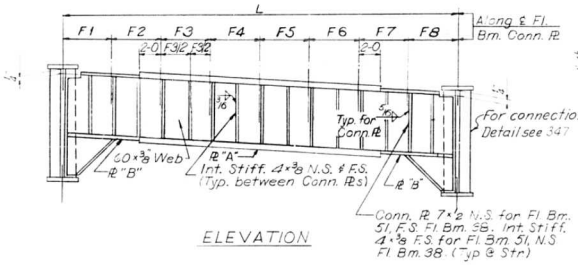
FL BM	L	F1	F2	F3	F4	F5	F6	F7	F8	A1	A2	A3	A4	A5	A6	A7	A8	A9	PLATE A T&B	PLATE B T&B
38	44'-2 11/16"	5'-6 5/16"	5'-6 5/16"	5'-6 5/16	5'-6 5/16	5'-6 5/16	5'-6 5/16"	5'-6 5/16	5'-6 5/16"	90.00.00"	90.19.34"	90.39.07	90.58.41"	91.18.14	91.37.47	91.57.19	92.16.51	92.36.23	12 x 1	12 x 3/4
39	44 11 3/4	5 7 1/2	5 7 1/2	5 7 1/2	5 7 1/2	5 7 1/2	5 7 1/2	5 7 1/2	5 7 1/2	90.00.00	90.19.34	90.39.07	90.58.41	91.18.14	91.37.47	91.57.19	92.16.51	92.36.23	12 x 7/8	12 x 3/4
40	45 11 1/4	5 8 7/8	5 8 7/8	5 8 7/8	5 8 7/8	5 8 7/8	5 8 7/8	5 8 7/8	5 8 7/8	90.00.00	90.19.34	90.39.07	90.58.41	91.18.14	91.37.47	91.57.19	92.16.51	92.36.23	12 x 1	12 x 3/4
41	46 10 11/16	5 10 5/16	5 10 3/8	5 10 3/8	5 10 3/8	5 10 5/16	5 10 5/16	5 10 5/16	5 10 5/16	90.00.00	90.17.09	90.37.09	90.57.07	91.17.03	91.36.57	91.56.48	92.16.37	92.36.23	12 x 1	12 x 7/8
42	47 10 3/16	5 11 9/16	5 11 13/16	5 11 13/16	5 11 13/16	5 11 13/16	5 11 13/16	5 11 13/16	5 11 13/16	90.00.00	90.17.09	90.37.09	90.57.07	91.17.03	91.36.57	91.56.48	92.16.37	92.36.23	12 x 1	12 x 7/8
43	48 9 15/16	6 1	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	6 1 1/4	90.00.00	90.32.20	90.52.20	91.12.18	91.32.14	91.52.07	92.11.58	92.31.47	92.51.34	12 x 1	12 x 7/8
44	50 1/4	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	6 3 5/16	90.00.00	90.09.45	90.39.13	91.08.28	91.37.29	92.06.18	92.34.53	93.03.15	93.31.24	12 x 1	12 x 1
45	51 5 9/16	6 3 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	90.00.00	90.49.36	91.19.03	91.48.18	92.17.20	92.46.08	93.14.44	93.43.06	94.11.15	12 x 1	12 x 1
46	53 1 7/8	6 7 1/8	6 7 13/16	6 7 13/16	6 7 13/16	6 7 13/16	6 7 13/16	6 7 13/16	6 7 13/16	90.00.00	90.02.46	90.45.02	91.06.57	92.08.31	92.49.43	93.30.33	94.11.01	94.51.05	12 x 1	12 x 1
47	55 1 1/4	6 8 13/16	6 10 15/16	6 10 15/16	6 10 15/16	6 10 15/16	6 10 15/16	6 10 15/16	6 10 15/16	90.00.00	90.42.36	91.24.52	92.06.48	92.48.21	93.29.34	94.10.24	94.50.51	95.30.56	12 x 1	12 x 1
48	57 3 5/8	7 1 3/8	7 2 1/16	7 2 1/16	7 2 1/16	7 2 1/16	7 2 1/16	7 2 1/16	7 2 1/16	90.00.00	91.22.27	92.04.43	92.46.38	93.28.12	94.09.24	94.50.14	95.30.42	96.10.46	12 x 2	12 x 1
49	59 9 1/16	7 3 7/8	7 5 7/8	7 5 7/8	7 5 7/8	7 5 7/8	7 5 7/8	7 5 7/8	7 5 7/8	90.00.00	90.35.42	91.30.57	92.25.40	93.19.50	94.13.25	95.06.26	95.58.50	96.50.37	12 x 2	12 x 1
50	62 5 9/16	7 7 15/16	7 9 15/16	7 9 15/16	7 9 15/16	7 9 15/16	7 9 15/16	7 9 15/16	7 9 15/16	90.00.00	91.15.32	92.10.47	93.05.30	93.59.40	94.53.16	95.46.16	96.38.40	97.30.27	12 x 2	12 x 1
51	64 9 5/8	8 1 3/16	8 1 3/16	8 1 3/16	8 1 3/16	8 1 3/16	8 1 3/16	8 1 3/16	8 1 3/16	90.00.33	91.49.41	92.44.46	93.39.39	94.33.49	95.27.25	96.20.25	97.12.49	98.04.36	12 x 1	12 x 1



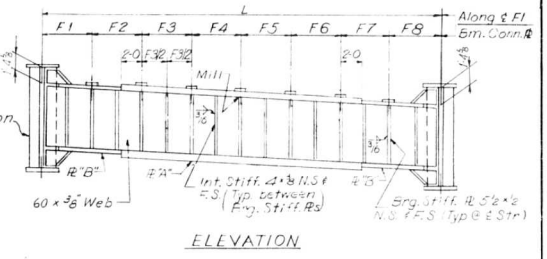
PLAN - END FL. BM. 51



PLAN

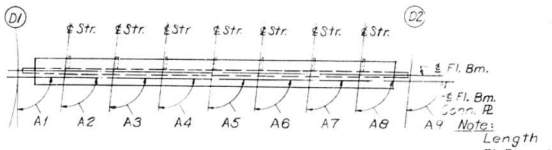


ELEVATION



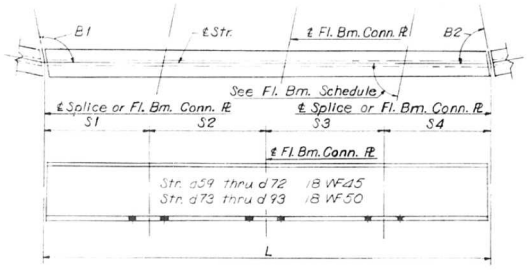
ELEVATION

INTERIOR FLOOR BEAM 39 THRU 50



PLAN - END FL. BM. 38

END FLOOR BEAM 38 AND 51



TYPICAL STRINGER

Note: Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16". All dimensions are in the horizontal plane. For Intermediate Stiffener, Erg. Stiffener and Connection Plate Details see Sheet No. 348

DESIGNED BY A.T. & A.J.C.
DRAWN BY D.C.H.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D8 THRU D10
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F A I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E(

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 218 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I-70	82-3HVF&E-1	ST CLAIR	247	89
FED. ROAD DIV. NO. 5	ILLINOIS	PROJECT		

FLOOR BEAM 39	T1	T2	T3	T4
STR.				
58	13/16	11/16	13/16	11/16
60	3/4	11/16	13/16	3/4
61	3/4	11/16	13/16	3/4
62	3/4	5/8	7/8	3/4
63	11/16	5/8	7/8	13/16
64	11/16	5/8	7/8	13/16
65	11/16	9/16	15/16	13/16

FLOOR BEAM 40	T1	T2	T3	T4
STR.				
58	13/16	11/16	13/16	11/16
60	13/16	5/8	7/8	11/16
61	3/4	5/8	7/8	3/4
62	3/4	5/8	7/8	3/4
63	3/4	9/16	15/16	3/4
64	11/16	9/16	15/16	13/16
65	11/16	9/16	15/16	13/16

FLOOR BEAM 41	T1	T2	T3	T4
STR.				
66	13/16	5/8	7/8	11/16
67	13/16	5/8	7/8	11/16
68	13/16	5/8	7/8	11/16
69	3/4	9/16	15/16	3/4
70	3/4	9/16	15/16	3/4
71	3/4	9/16	15/16	3/4
72	11/16	1/2	1	13/16

FLOOR BEAM 42	T1	T2	T3	T4
STR.				
66	7/8	5/8	7/8	5/8
67	13/16	5/8	7/8	11/16
68	13/16	9/16	15/16	11/16
69	13/16	9/16	15/16	11/16
70	3/4	9/16	15/16	3/4
71	3/4	1/2	1	3/4
72	3/4	1/2	1	3/4

FLOOR BEAM 43	T1	T2	T3	T4
STR.				
66	7/8	5/8	7/8	5/8
67	7/8	9/16	15/16	5/8
68	13/16	9/16	15/16	11/16
69	13/16	9/16	15/16	11/16
70	13/16	1/2	1	11/16
71	3/4	1/2	1	3/4
72	3/4	7/16	1 1/16	3/4

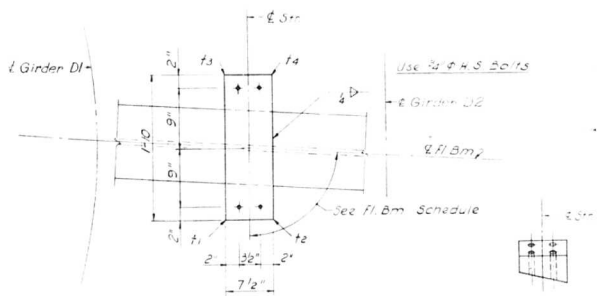
FLOOR BEAM 44	T1	T2	T3	T4
STR.				
73	15/16	9/16	15/16	9/16
74	7/8	9/16	15/16	5/8
75	7/8	1/2	1	5/8
76	13/16	1/2	1	11/16
77	13/16	1/2	1	11/16
78	13/16	7/16	1 1/16	11/16
79	3/4	7/16	1 1/16	3/4

FLOOR BEAM 45	T1	T2	T3	T4
STR.				
73	15/16	9/16	15/16	9/16
74	15/16	1/2	1	9/16
75	7/8	1/2	1	5/8
76	7/8	1/2	1	5/8
77	13/16	7/16	1 1/16	11/16
78	13/16	7/16	1 1/16	11/16
79	13/16	3/8	1 1/8	11/16

FLOOR BEAM 46 THRU 48	T1	T2	T3	T4
STR. 80 THRU 86	15/16	1/2	1	9/16

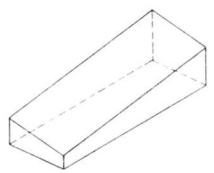
FLOOR BEAM 49	T1	T2	T3	T4
STR.				
87	7/8	1/2	1	5/8
88	7/8	9/16	15/16	5/8
89	7/8	9/16	15/16	5/8
90	7/8	9/16	15/16	5/8
91	15/16	9/16	15/16	9/16
92	15/16	9/16	15/16	9/16
93	15/16	9/16	15/16	9/16

FLOOR BEAM 50	T1	T2	T3	T4
STR.				
87	7/8	9/16	15/16	5/8
88	7/8	9/16	15/16	5/8
89	7/8	9/16	15/16	5/8
90	7/8	9/16	15/16	5/8
91	7/8	9/16	15/16	5/8
92	15/16	9/16	15/16	9/16
93	15/16	9/16	15/16	9/16

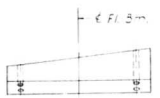


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS D8 THRU D10

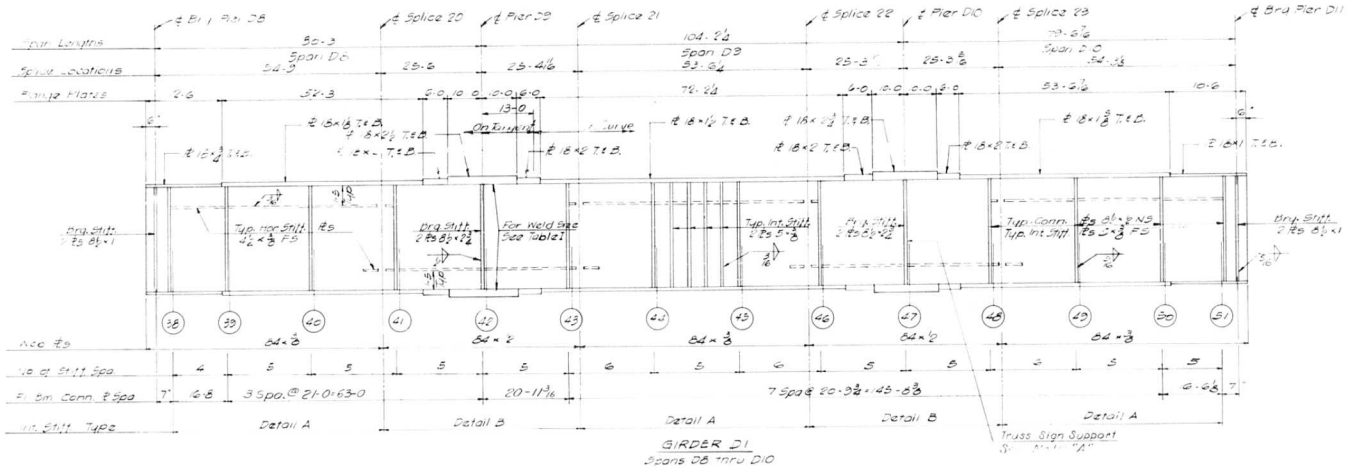
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

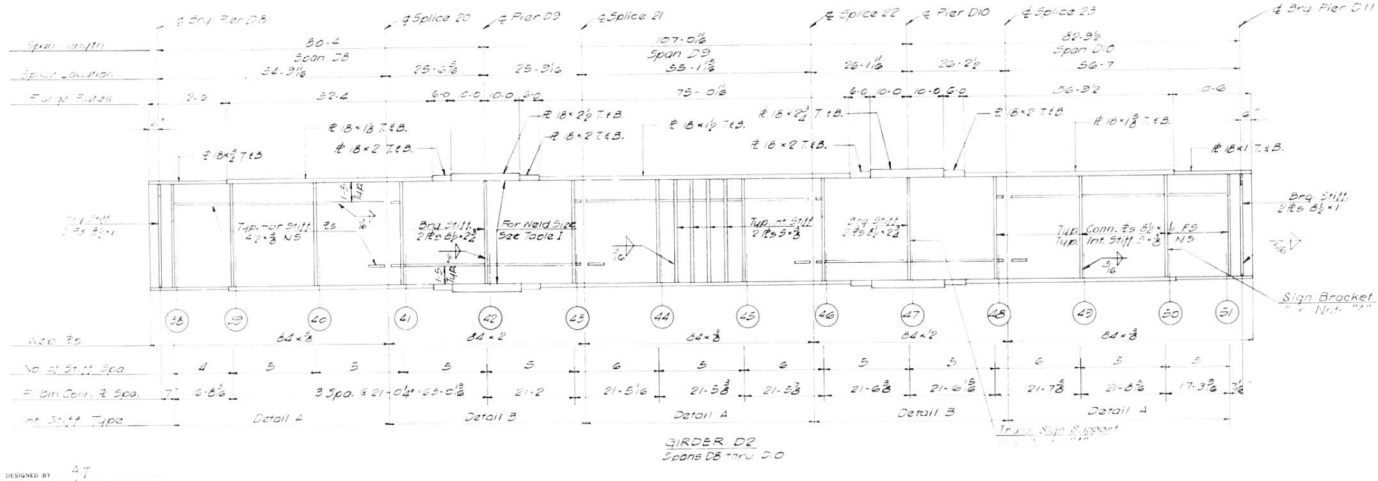
F A I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS	SHEET 219 OF 526

DESIGNED BY A.M.C.
DRAWN BY D.C.H.
CHECKED BY K.S.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	90
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		





Note "A":
Interior Stiffeners should be moved if necessary to clear Sign Bracket Connection Plates.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh No. 217.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details, and Table I See Sh No. 348, 349 and 350.

For Sign Bracket and Truss Sign Support Details see Sh No. 360.

DESIGNED BY A.T.
DRAWN BY T.
CHECKED BY
APPROVED BY H.A.

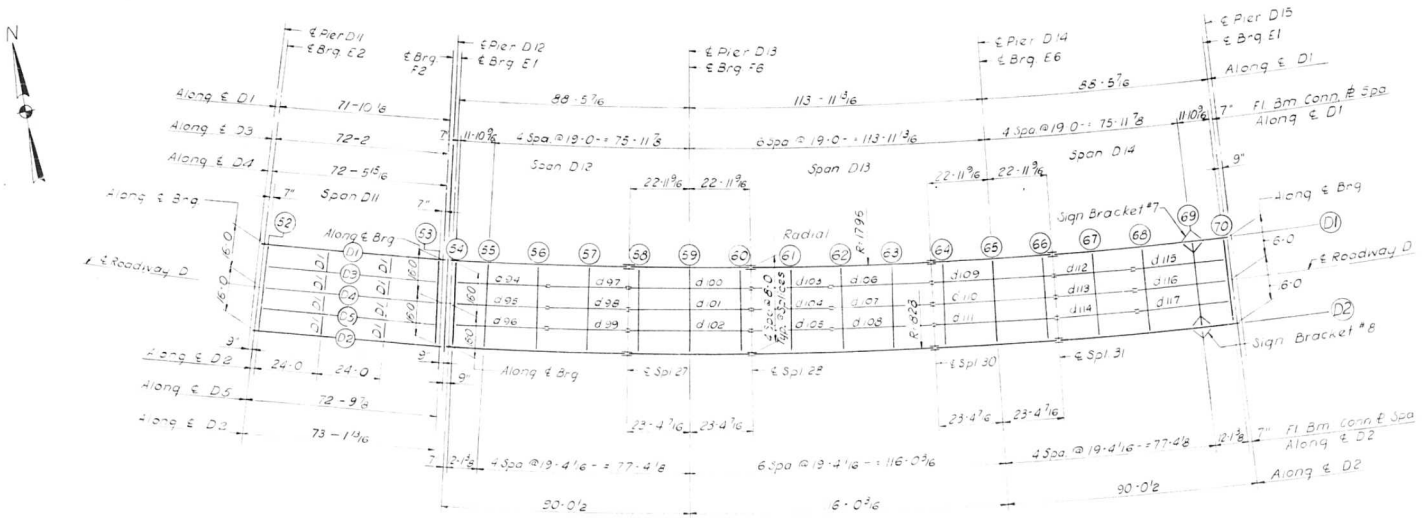
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D8 THRU D10
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 220 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	51
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D11 THRU D14

ELEVATION TOP OF FLANGE

	STR D1	STR D2	DIFF.
CL. BRG.	447.151	449.661	2.510
FLOOR BEAM 52	447.154	449.665	2.511
FLOOR BEAM 53	447.511	450.071	2.560
CL. BRG.	447.514	450.074	2.560

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	447.313	449.873	2.560
FLOOR BEAM 54	447.316	449.876	2.560
FLOOR BEAM 55	447.376	449.936	2.560
FLOOR BEAM 56	447.472	450.032	2.560
FLOOR BEAM 57	447.567	450.127	2.560
SPLICE 27	447.643	450.203	2.560
FLOOR BEAM 58	447.663	450.223	2.560
FLOOR BEAM 59	447.758	450.319	2.560
FLOOR BEAM 60	447.855	450.415	2.560
SPLICE 28	447.875	450.435	2.560
FLOOR BEAM 61	447.938	450.498	2.558
FLOOR BEAM 62	448.019	450.579	2.560

	GIR. D1	GIR. D2	DIFF
FLOOR BEAM 63	448.099	450.659	2.560
SPLICE 30	448.162	450.722	2.560
FLOOR BEAM 64	448.174	450.734	2.560
FLOOR BEAM 65	448.226	450.786	2.560
FLOOR BEAM 66	448.279	450.839	2.560
SPLICE 31	448.290	450.850	2.560
FLOOR BEAM 67	448.310	450.870	2.560
FLOOR BEAM 68	448.336	450.896	2.560
FLOOR BEAM 69	448.362	450.922	2.560
FLOOR BEAM 70	448.378	450.938	2.560
CL. BRG.	448.379	450.939	2.560

Note:

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183. For Sign Bracket Detail see Sheet No. 236.

BILL OF MATERIAL		
*Structural Steel	Lbs.	460,100

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,270 lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN
SPANS D11 THRU D14

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 221 OF 505

DESIGNED BY R.M.P.
DRAWN BY M.
CHECKED BY A.J.C.
APPROVED BY R.A.

Rev. Str. Steel from 462,040# to 460,100# 6-3-66 N.R.F.

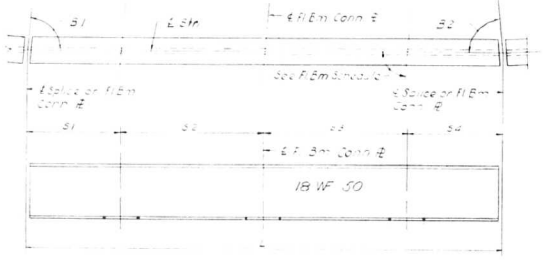
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	32
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

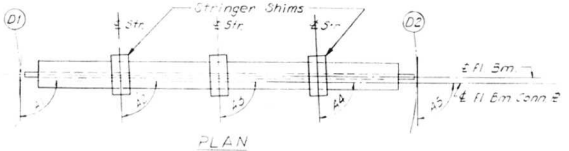
STR	L	T1	S2	S3	S4	B1	B2
94	35 1/16	11 11 1/4		19 1	3 11 13/16	89.24.06	89.26.39
95	35 2	12		19 2	4	89.24.07	89.26.38
96	35 3 15/16	12 11/16		19 3	4 3/16	89.24.07	89.26.38
97	30 2 3/8	15 1 3/16			15 1 3/16	89.31.14	89.31.14
98	30 4	15 2			15 2	89.31.14	89.31.14
99	30 5 5/8	15 2 13/16			15 2 13/16	89.31.14	89.31.14
100	46 1 1/2	3 13/16	19 1	19 1	3 11 13/16	89.16.03	89.16.03
101	46 4	4	19 2	19 2	4	89.16.03	89.16.03
102	46 6 7/16	4 3/16	19 3	19 3	4 3/16	89.16.03	89.16.03
103	30 2 3/8	15 1 3/16			15 1 3/16	89.31.14	89.31.14
104	30 4	15 2			15 2	89.31.14	89.31.14
105	30 5 5/8	15 2 13/16			15 2 13/16	89.31.14	89.31.14
106	38 1 15/16	3 1 13/16	19 1		15 1 3/16	89.23.38	89.23.38
107	38 4	4	19 2		15 2	89.23.38	89.23.38
108	38 6	4 3/16	19 3		15 2 13/16	89.23.38	89.23.38
109	46 1 1/2	3 11 13/16	19 1	19 1	3 11 13/16	89.16.03	89.16.03
110	46 4	4	19 2	19 2	4	89.16.03	89.16.03
111	46 6 7/16	4 3/16	19 3	19 3	4 3/16	89.16.03	89.16.03
112	30 2 3/8	15 1 3/16			15 1 3/16	89.31.14	89.31.14
113	30 4	15 2			15 2	89.31.14	89.31.14
114	30 5 5/8	15 2 13/16			15 2 13/16	89.31.14	89.31.14
115	35 1/16	3 11 13/16	19 1		11 11 1/4	89.26.39	89.24.06
116	35 2	4	19 2		12	89.26.38	89.24.07
117	35 3 15/16	4 3/16	19 3		12 11/16	89.26.38	89.24.07

FLOOR BEAM DIMENSIONS

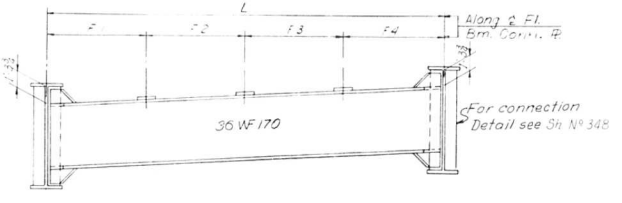
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
52	34	8'	8'	8'	8'	88.49.48	88.49.48	88.49.48	88.49.48	88.49.48
53	34	8	8	8	8	91.10.12	91.10.12	91.10.12	91.10.12	91.10.12
54	32	8	8	8	8	89.57.27	89.24.06	89.24.07	89.24.07	89.57.29
55	32	7 11 1/16	8	8	8 15/16	90.00.00	89.49.24	89.49.24	89.49.25	90.00.00
56	32	7 11 9/16	8	8	8 7/16	90.00.00	90.25.46	90.25.46	90.25.47	90.00.00
57	32	7 11 1/4	8	8	8 3/4	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
58	32	7 11 7/16	8	8	8 9/16	90.00.00	89.23.38	89.23.38	89.23.38	90.00.00
59	32	7 10 1/4	8	8	8 1 13/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
60	32	7 11 7/16	8	8	8 9/16	90.00.00	90.36.22	90.36.22	90.36.22	90.00.00
61	32	7 11 1/4	8	8	8 3/4	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
62	32	7 11 9/16	8	8	8 7/16	90.00.00	89.31.14	89.31.14	89.31.14	90.00.00
63	32	7 10 13/16	8	8	8 1 3/16	90.00.00	90.07.35	90.07.35	90.07.35	90.00.00
64	32	7 11 7/16	8	8	8 9/16	90.00.00	89.23.38	89.23.38	89.23.38	90.00.00
65	32	7 10 1/4	8	8	8 1 13/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
66	32	7 11 7/16	8	8	8 9/16	90.00.00	90.36.22	90.36.22	90.36.22	90.00.00
67	32	7 11 1/4	8	8	8 3/4	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
68	32	7 11 9/15	8	8	8 7/16	90.00.00	89.34.14	89.34.14	89.34.13	90.00.00
69	32	7 11 1/16	8	8	8 15/16	90.00.00	90.10.36	90.10.36	90.10.35	90.00.00
70	32	8	8	8	8	90.02.33	90.35.54	90.35.53	90.35.53	90.02.31



TYPICAL STRINGER

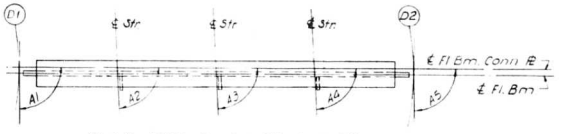


PLAN

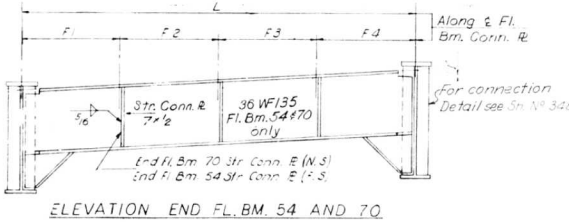


ELEVATION

INTERIOR FLOOR BEAM 55 THRU 69

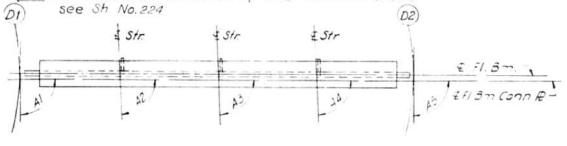


PLAN END FL. BM. 53 AND 70



ELEVATION END FL. BM. 54 AND 70

Note: for Elevation and Detail of End Fl. Bm. 52 and 53 see Sh. No. 224



PLAN END FL. BM. 52 AND 54

END FLOOR BEAM 52, 53, 54 AND 70

Notes:
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Details of Stringers in Span D11 see Sh. No. 224
For Connection Plate Details see Sh. No. 348

DESIGNED BY A.T. & A.J.C.
DRAWN BY I.M.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D11 THRU D14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT 70 ST CLAIR CO SECTION 82-3HVFBE-1

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 202 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	93
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

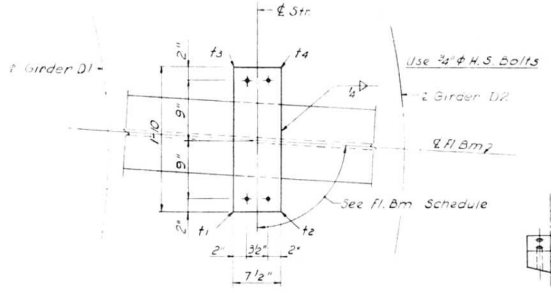
FLOOR BEAM 55 THRU 57	T1	T2	T3	T4
STR. 94 THRU 99	1	3/8	1 1/8	1/2

FLOOR BEAM 58 THRU 60	T1	T2	T3	T4
STR. 100 THRU 102	1	3/8	1 1/8	1/2

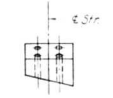
FLOOR BEAM 61 THRU 63	T1	T2	T3	T4
STR. 103 THRU 108	1	3/8	1 1/8	1/2

FLOOR BEAM 64 THRU 66	T1	T2	T3	T4
STR. 109 THRU 111	1	7/16	1 1/16	1/2

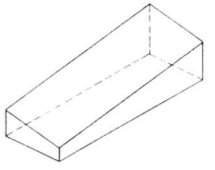
FLOOR BEAM 67 THRU 69	T1	T2	T3	T4
STR. 112 THRU 117	1 1/16	7/16	1 1/16	7/16



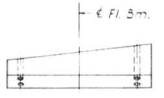
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY J.C.
DRAWN BY D.C.H.
CHECKED BY A.S.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

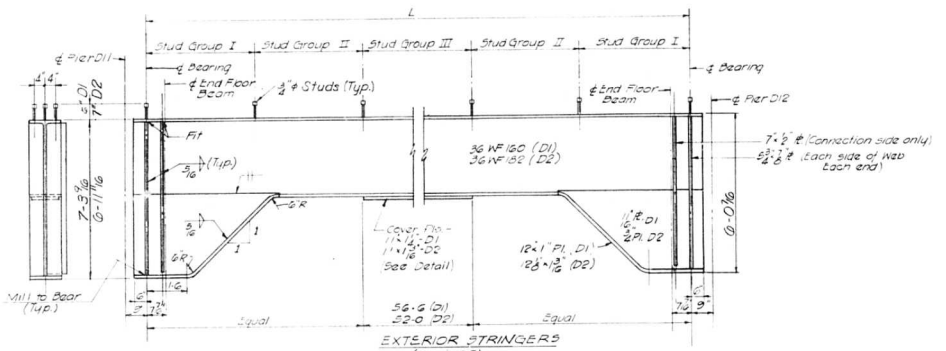
STRINGER SHIMS
SPANS D12 THRU D14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

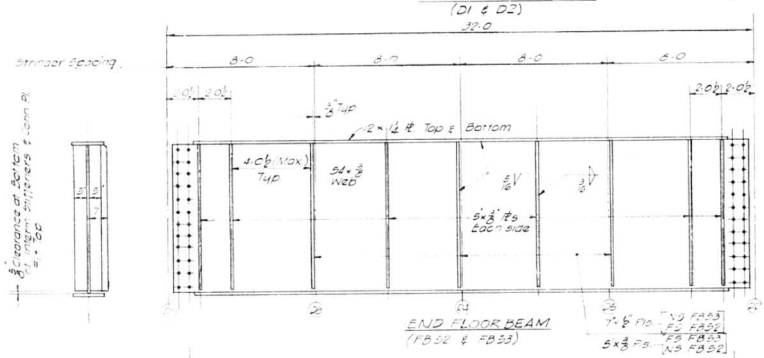
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

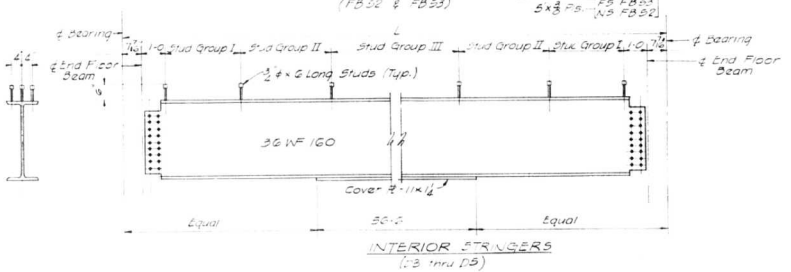
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

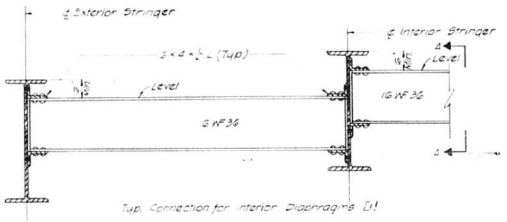
SHEET 223 OF 526

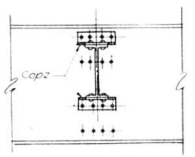
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST. CLAIR	247	94
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

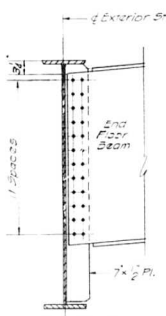


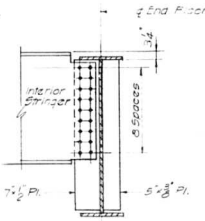


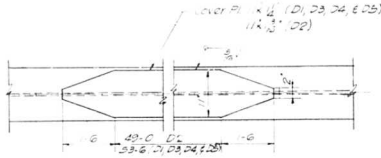


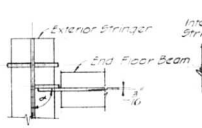


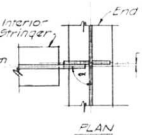








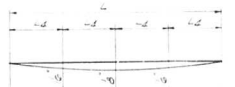




END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION

NOTE: For Angle ∝ see End Floor Beam Schedule Sheet No 222



NOTE: Cut all stiffeners and connection plates 1/2" x 1/2" at corners to clear welding at flange to web and to clear beam fillets.

NOTE: For Framing Plan see Sheet No. 221

STRINGER LENGTH & SHEAR CONN. SPACING				
STRINGER	LENGTH	GROUP I	GROUP II	GROUP III
D1	71-10 3/8	36@4 3/8"	28@6 1/2"	20@9 1/2"
D3	72'-0	32@4 1/2"	28@6 1/2"	20@9 1/2"
D4	72-6 1/8"	32@4 1/2"	30@6 1/2"	18@9 1/2"
D5	72-9 3/8"	32@4 1/2"	30@6 1/2"	18@9 1/2"
D2	73-1 3/8"	36@4 1/2"	32@6 1/2"	20@9 1/2"

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN D11

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

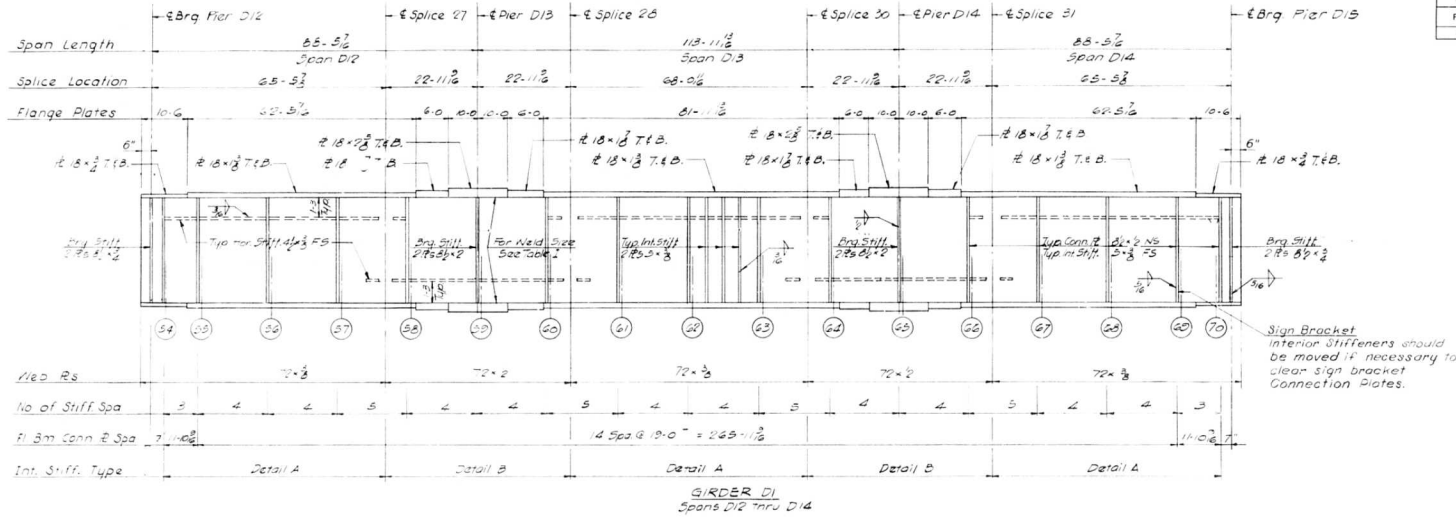
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

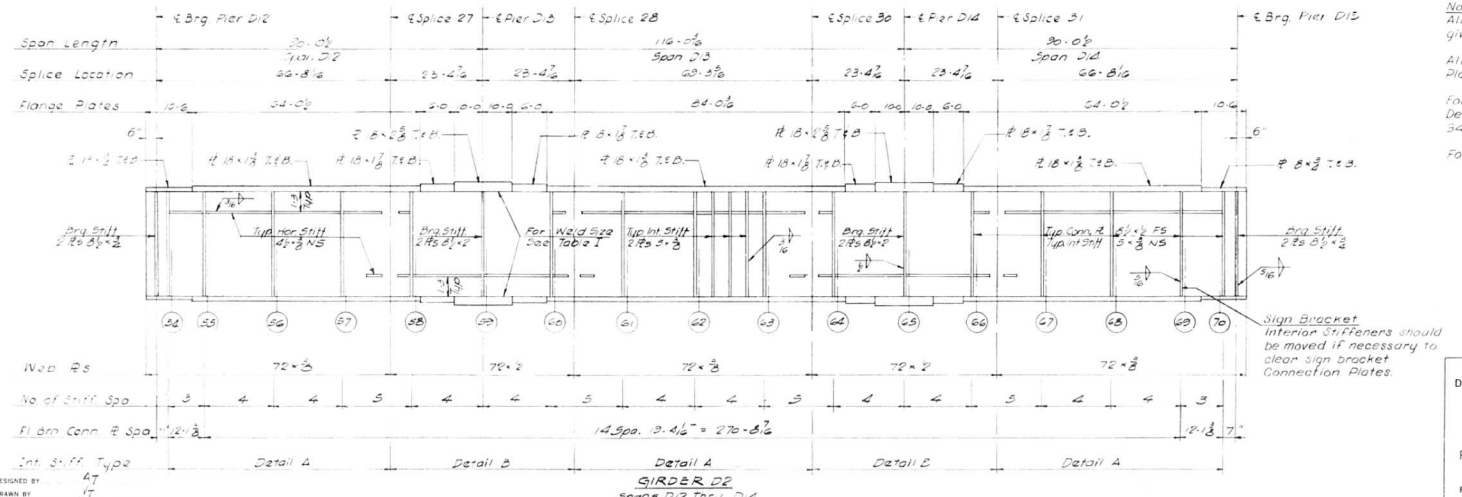
SHEET 224 OF 528

DESIGNED BY H.J.
DRAWN BY
CHECKED BY L.W.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	95
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1
Spans D12 thru D14



GIRDER D2
Spans D12 Thru D14

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 221.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice Stiffener Connection Plate Details, and Table I see Sh. No. 348, 349 and 350.

For Sign Bracket Detail see Sh. No. 360.

DESIGNED BY AT
DRAWN BY AT
CHECKED BY E.L.
APPROVED BY K.L.

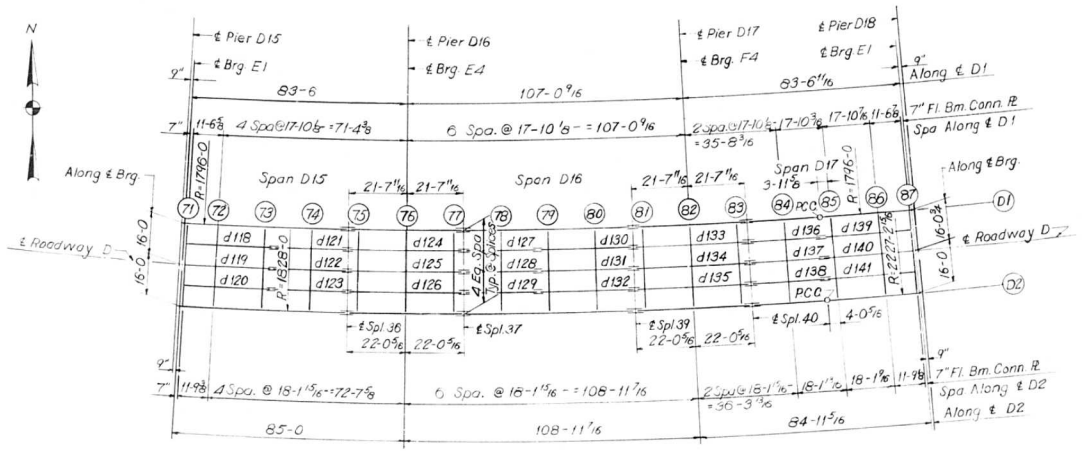
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D12 THRU D14
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 225 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	76
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D15 THRU D17

ELEVATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	DIFF.
CL. BRG.		448.380	450.940	2.560
FLOOR BEAM	71	448.379	450.939	2.560
FLOOR BEAM	72	448.376	450.936	2.560
FLOOR BEAM	73	448.371	450.931	2.560
FLOOR BEAM	74	448.365	450.925	2.560
SPLICE	36	448.361	450.921	2.560
FLOOR BEAM	75	448.355	450.915	2.560
FLOOR BEAM	76	448.325	450.885	2.560
FLOOR BEAM	77	448.296	450.856	2.560
SPLICE	37	448.290	450.850	2.560
FLOOR BEAM	78	448.248	450.808	2.560
FLOOR BEAM	79	448.194	450.754	2.560
FLOOR BEAM	80	448.141	450.701	2.560
SPLICE	39	448.099	450.659	2.560
FLOOR BEAM	81	448.082	450.642	2.560
FLOOR BEAM	82	448.004	450.564	2.560
FLOOR BEAM	83	447.926	450.486	2.560
SPLICE	40	447.910	450.470	2.560
FLOOR BEAM	84	447.866	450.371	2.505
FLOOR BEAM	85	447.810	450.247	2.437
FLOOR BEAM	86	447.754	450.122	2.368
FLOOR BEAM	87	447.718	450.041	2.323
CL. BRG.		447.716	450.037	2.321

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	324,670

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960 Lbs.

DESIGNED BY R.M.R.
DRAWN BY O.G.H.
CHECKED BY A.J.C.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D15 THRU D17

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
82601 526

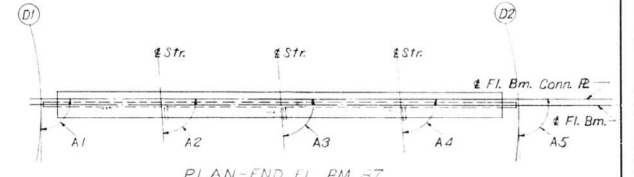
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I – 70	82–3MFBEI	ST CLAIR	247	37
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

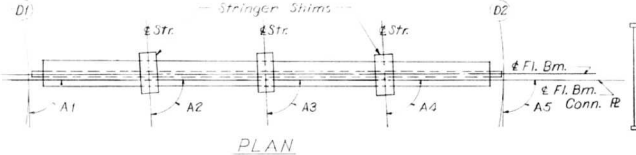
STR #	L	S1	S2	S3	S4	B1	B2
118	33'-4 1/8"	11'-7 5/16"		17 11 1/16	3'-9 13/16"	89.25.41"	89.28.14"
119	33 6	11 8		18	3 10	89.25.42	89.28.13
120	33 7 13/16	11 8 11/16		18 15/16	3 10 7/16	89.25.42	89.28.13
121	28 2 1/2	14 1 1/4			14 1 1/4	89.33.07	89.33.07
122	28 4	14 2			14 2	89.33.07	89.33.07
123	28 5 1/2	14 2 3/4			14 2 3/4	89.33.07	89.33.07
124	43 5 11/16	3 9 13/16	17 11 1/16	17 11 1/16	3 9 13/16	89.18.35	89.18.35
125	43 8	3 10	18	18	3 10	89.18.35	89.18.35
126	43 10 5/16	3 10 3/16	18 15/16	18 15/16	3 10 3/16	89.18.35	89.18.35
127	28 2 1/2	14 1 1/4			14 1 1/4	89.33.07	89.33.08
128	28 4	14 2			14 2	89.33.07	89.33.08
129	28 5 1/2	14 2 3/4			14 2 3/4	89.33.07	89.33.08
130	35 10 1/16	3 9 13/16	17 11 1/16		14 1 1/4	89.25.51	89.25.51
131	36	3 10	18		14 2	89.25.51	89.25.51
132	36 1 7/8	3 10 3/16	18 15/16		14 2 3/4	89.25.51	89.25.51
133	43 5 11/16	3 9 13/16	17 11 1/16	17 11 1/16	3 9 13/16	89.18.35	89.18.35
134	43 8	3 10	18	18	3 10	89.18.35	89.18.35
135	43 10 5/16	3 10 3/16	18 15/16	18 15/16	3 10 3/16	89.18.35	89.18.35
136	28 2 1/2	14 1 1/4			14 1 1/4	89.33.07	89.33.11
137	28 4	14 2			14 2	89.33.07	89.33.11
138	28 5 1/2	14 2 3/4			14 2 3/4	89.33.07	89.33.11
139	33 4 1/2	3 9 13/16		11 7 7/16	17 11 3/16	89.29.36	89.36.15
140	33 6	3 10		11 8	18	89.31.04	89.34.47
141	33 7 1/2	3 10 3/16		1 8 9/16	8 3/4	89.32.31	89.33.20

FLOOR BEAM DIMENSIONS

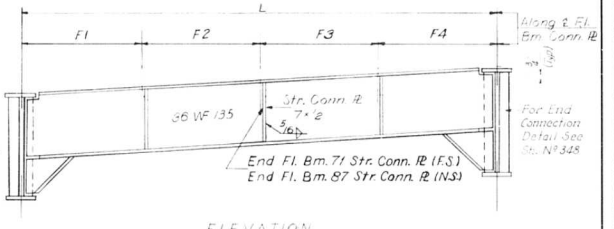
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
71	32'-0"	8'-0"	8'-0"	8'-0"	8'-0"	89°57.27"	89.25.41"	89.25.42"	89.25.42"	89.57.29"
72	32	7 11 3/16	8	8	8 7/8	90.00.00	89.50.21	89.50.21	89.50.22	90.00.00
73	32	7 11 5/8	8	8	8 3/8	90.00.00	90.24.30	90.24.30	90.24.31	90.00.00
74	32	7 11 5/16	8	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
75	32	7 11 1/2	8	8	8 1/2	90.00.00	89.25.51	89.25.51	89.25.51	90.00.00
76	32	7 10 7/16	8	8	8 1 9/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
77	32	7 11 1/2	8	8	8 1/2	90.00.00	90.34.09	90.34.09	90.34.09	90.00.00
78	32	7 11 5/16	8	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
79	32	7 11 3/15	8	8	8 7/16	90.00.00	89.33.07	89.33.07	89.33.07	90.00.00
80	32	7 11	8	8	8 1	90.00.00	90.07.16	90.07.16	90.07.16	90.00.00
81	32	7 11 1/2	8	8	8 1/2	90.00.00	89.25.51	89.25.51	89.25.51	90.00.00
82	32	7 10 7/16	8	8	8 1 9/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
83	32	7 11 1/2	8	8	8 1/2	90.00.00	90.34.09	90.34.09	90.34.09	90.00.00
84	32	7 11 5/16	8	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
85	32	7 11 5/8	8	8	8 5/16	89.58.37	89.35.33	89.37.01	89.38.28	90.00.00
86	32 5/16	7 11 1/4	8 1/8	8 1/8	8 13/16	89.52.24	90.03.32	90.05.00	90.06.27	90.00.00
87	32 11/16	8 3/16	8 3/16	8 3/16	8 3/16	89.50.28	90.23.45	90.25.13	90.26.40	90.02.04



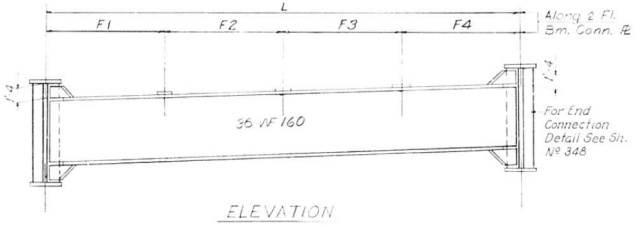
PLAN-END FL. BM. 87



PLAN

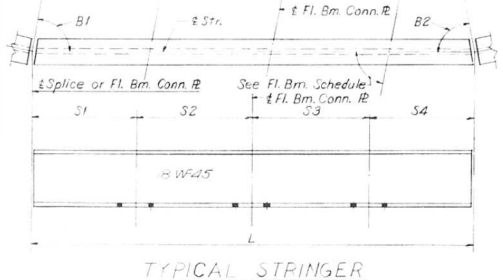


ELEVATION

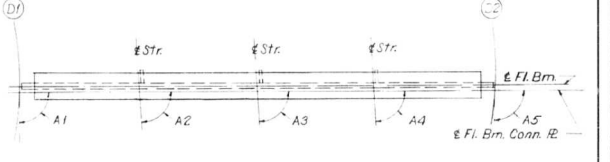


ELEVATION

INTERIOR FLOOR BEAM 72 THRU 86



TYPICAL STRINGER



PLAN-END FL. BM. 71

END FLOOR BEAM 71 AND 87

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "16".
All dimensions are in the horizontal plane.
For Connection Plate Details see Sheet No. 348

DESIGNED BY A.T. & A.J.C.
DRAWN BY J.C.H.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS D15 THRU D17
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F A I RT 70 ST CLAIR CO. SECTION 82-3MFBEI

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 227 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	98
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

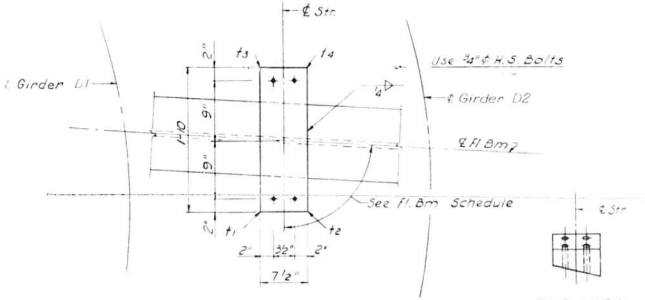
FLOOR BEAM 72 THRU 74	T1	T2	T3	T4
STR. 118 THRU 123	1 1/16	7/16	1 1/16	7/16

FLOOR BEAM 75 THRU 77	T1	T2	T3	T4
STR. 124 THRU 126	1 1/16	7/16	1 1/16	7/16

FLOOR BEAM 78 THRU 80	T1	T2	T3	T4
STR. 127 THRU 132	1 1/16	1/2	1	7/16

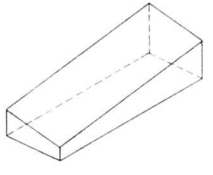
FLOOR BEAM 81 THRU 83	T1	T2	T3	T4
STR. 133 THRU 135	1 1/8	1/2	1	3/8

FLOOR BEAM 84 THRU 86	T1	T2	T3	T4
STR. 136 THRU 141	1 1/16	1/2	1	7/16

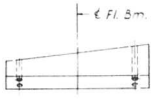


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS D15 THRU D17

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

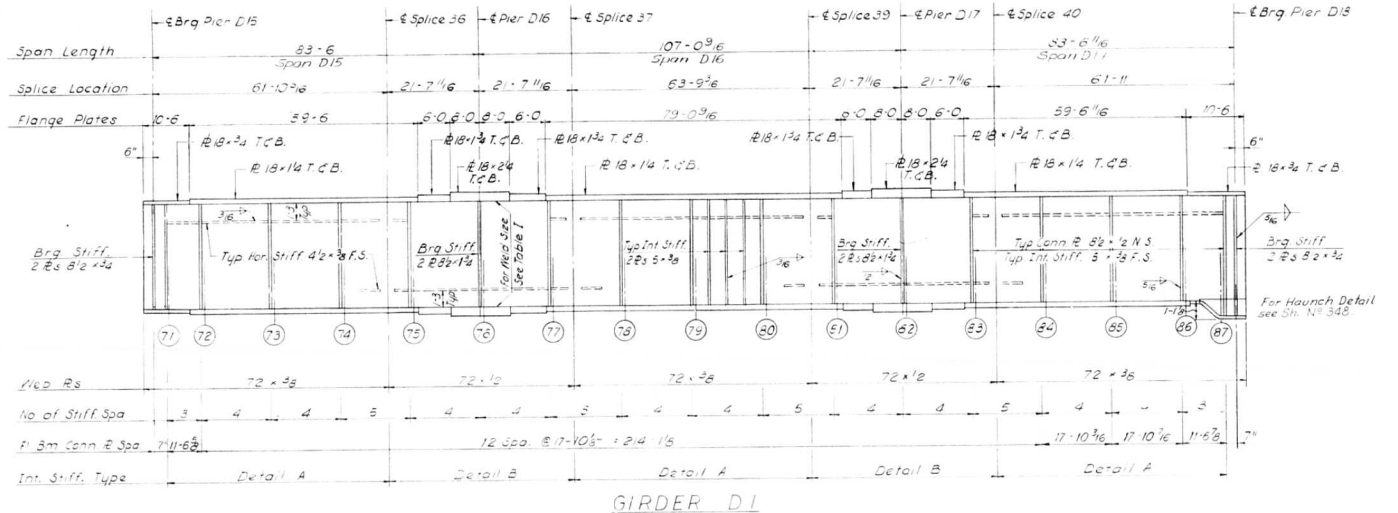
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 228 OF 526

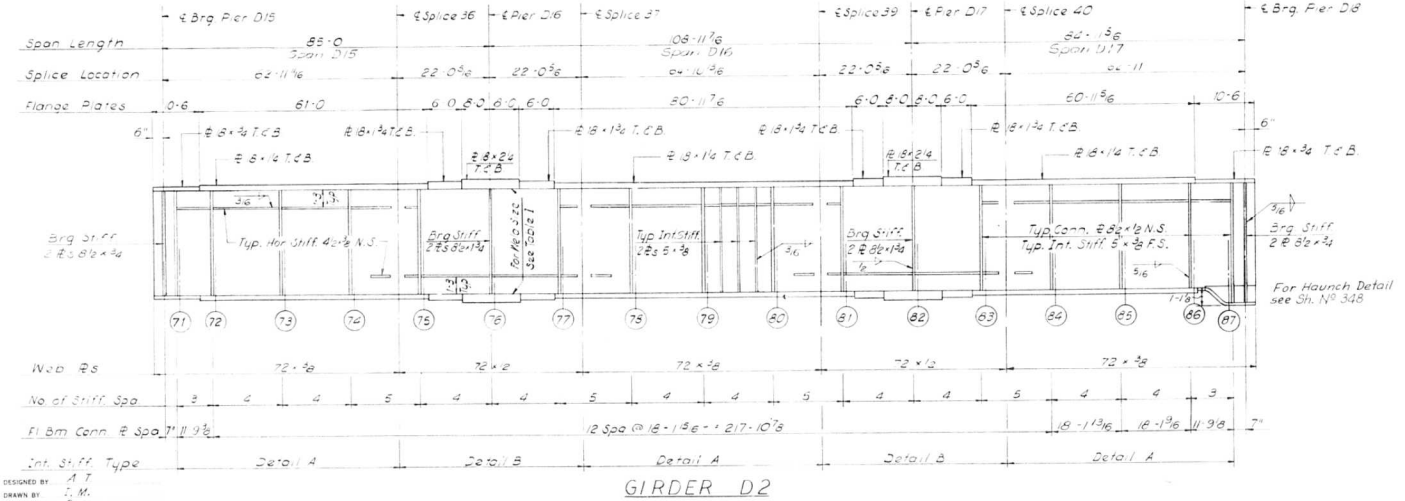
DESIGNED BY: A.J.C.
DRAWN BY: D.S.H.
CHECKED BY: A.S.
APPROVED BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-I	ST. CLAIR	247	99
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1

SPANS D15 THRU D17



GIRDER D2

SPANS D15 THRU D17

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 226.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I see Sh. No. 348, 349 and 350.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2

SPANS D15 THRU D17

POPLAR STREET BRIDGE APPROACHES

ROADWAY "D"

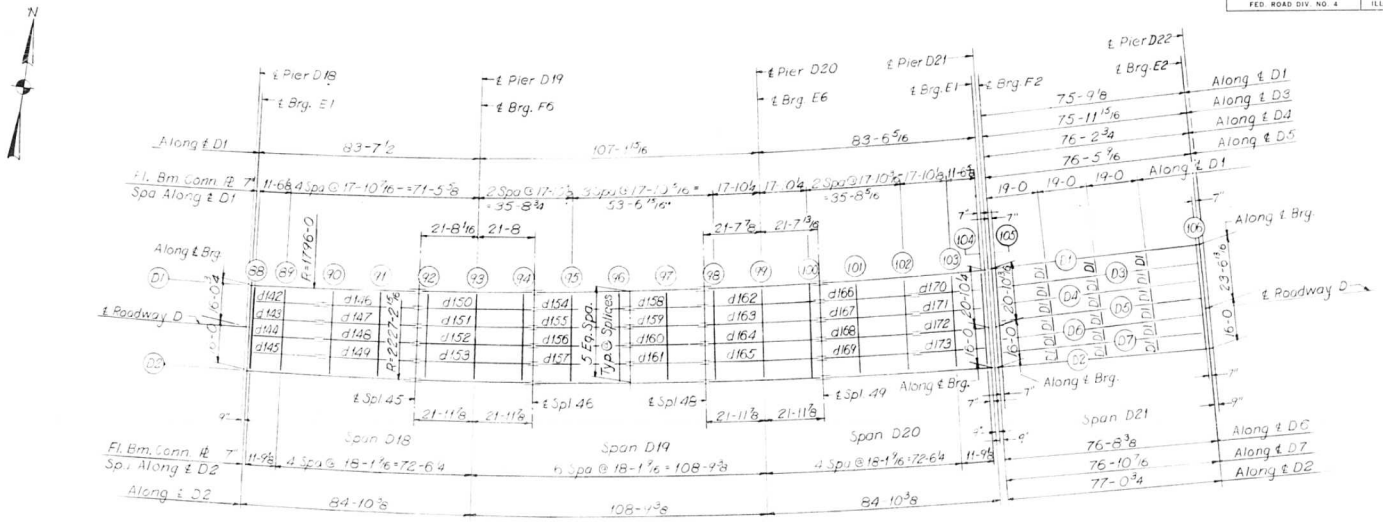
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 229 OF 526

DESIGNED BY A.T.
DRAWN BY D.M.
CHECKED BY P.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	100
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS D18 THRU D21

ELEVATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	DIFF.
CL. BRG.		447.708	450.029	2.321
FLOOR BEAM	88	447.705	450.027	2.322
FLOOR BEAM	89	447.641	449.968	2.327
FLOOR BEAM	90	447.542	449.878	2.336
FLOOR BEAM	91	447.443	449.788	2.345
SPLICE	45	447.366	449.717	2.351
FLOOR BEAM	92	447.343	449.698	2.355
FLOOR BEAM	93	447.238	449.608	2.370
FLOOR BEAM	94	447.132	449.518	2.386
SPLICE	46	447.110	449.499	2.389
FLOOR BEAM	95	447.021	449.428	2.407
FLOOR BEAM	96	446.908	449.338	2.430
FLOOR BEAM	97	446.796	449.248	2.452
SPLICE	48	446.707	449.177	2.470
FLOOR BEAM	98	446.682	449.158	2.476
FLOOR BEAM	99	446.562	449.068	2.506
FLOOR BEAM	100	446.442	448.978	2.536
SPLICE	49	446.417	448.959	2.542
FLOOR BEAM	101	446.317	448.888	2.571
FLOOR BEAM	102	446.191	448.798	2.607
FLOOR BEAM	103	446.065	448.708	2.643
FLOOR BEAM	104	445.983	448.650	2.667
CL. BRG.		445.979	448.647	2.668

ELEVATION TOP OF FLANGE

		STR. D1	STR. D2	DIFF.
CL. BRG.		446.176	448.848	2.672
FLOOR BEAM	105	446.172	448.845	2.673
FLOOR BEAM	106	445.605	448.468	2.863
CL. BRG.		445.600	448.465	2.865

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	483,295

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,270 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS D18 THRU D21
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 230 OF 526

DESIGNED BY R.M.R.
DRAWN BY D.G.H.
CHECKED BY A.J.C.
APPROVED BY K.A.

Rev. Str. Steel from 485,550# to 483,295# 6-3-66 N.R.F.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	121
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

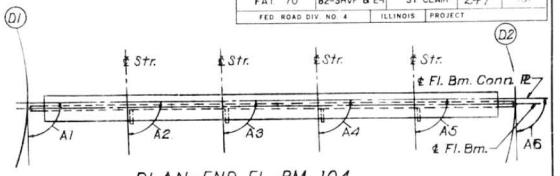
STRINGER DIMENSIONS

STR. #	L	S1	S2	S3	S4	B1	B2
142	25 8 9/16	11 7 3/16			14 1 1/4	89.24.16	89.53.36
143	25 9 1/2	11 7 3/1			14 1 3/4	89.27.42	89.50.04
144	25 10 7/16	11 8 3/16			14 2 1/4	89.31.06	89.46.40
145	25 11 7/16	11 8 11/16			14 2 3/4	89.34.29	89.43.17
146	35 10 3/16	3 9 13/16	17 11 1/16		14 1 1/4	89.09.55	89.54.07
147	35 11 5/16	3 9 15/16	17 11 11/16		14 1 3/4	89.15.30	4
148	36 5/8	3 10 1/16	18 5/16		14 2 1/4	89.21.02	89.43.09
149	36 1 7/8	3 10 3/16	18 15/16		14 2 3/4	89.26.32	89.37.29
150	43 5 5/8	3 9 13/16	17 11	17 11	3 9 13/16	88.53.0	89.59.07
151	43 7 1/8	3 9 15/16	17 11 11/16	17 11 5/8	3 9 15/16	89.01.20	89.50.47
152	43 8 11/16	3 10 1/16	18 5/16	18 1/4	3 10 1/16	89.09.37	89.42.29
153	43 10 1/4	3 10 3/16	18 15/16	18 15/16	3 10 3/16	89.17.56	89.34.15
154	35 9 15/16	14 1 3/16	17 10 15/16		3 9 3/4	88.48.09	90.16.02
155	35 11 5/16	17 11 5/16			3 9 15/16	88.53.76	90.04.54
156	36 1 1/16	14 2 1/4	18 1/4		3 10 1/16	89.17.08	89.50.54
157	36 2 11/16	14 2 3/4	18 7/8		3 10 3/16	89.24.07	89.42.55
158	28 2 5/16	14 1 3/16			14 1 1/8	88.48.03	90.16.56
159	28 3 1/8	14 1 11/16			11 1 11/16	81.58.27	90.17.38
160	28 4 1/2	14 2 3/16			11 2 3/16	82.11.42	90.14.31
161	28 5 7/16	14 2 11/16			11 2 11/16	82.24.50	89.58.24
162	4 5 11/16	17 11 15/16	17 11 7/8		3 9 7/8	88.24.15	90.28.47
163	43 4 3/16	3 9 15/16	17 11 3/16	17 11 1/16	3 9 7/8	88.39.3	90.12.58
164	43 5 7/16	3 9 15/16	17 11 11/16	17 11 5/8	3 9 15/16	88.44.55	89.59.14
165	43 6 11/16	3 10 1/16	18 1/4	18 1/16	3 10 1/16	88.50.31	89.43.36
166	43 8 1/16	3 10 3/16	18 7/8	18 7/8	3 10 3/16	88.56.01	89.31.06
167	35 9 11/16	14 1 1/8	17 10 13/16		3 9 7/8	88.18.22	90.45.09
168	36 1 1/2	14 1 5/8	17 11 1/4		3 9 7/8	88.36.56	90.14.24
169	36 3 1/8	14 2 3/16	18 3/16		3 10 1/16	88.50.26	90.16.20
170	36 4 3/4	14 2 11/16	18 7/8		3 10 3/16	88.57.51	89.59.15
171	28 8 1/8	14 1 1/16			11 1 1/16	88.17.51	90.59.55
172	28 9 3/16	14 1 9/16			11 1 9/16	88.30.34	90.39.11
173	28 10 1/4	14 2 1/16			11 1 1/16	88.59.10	90.18.36
174	28 11 5/16	14 2 11/16			11 8 5/8	89.13.36	89.58.10

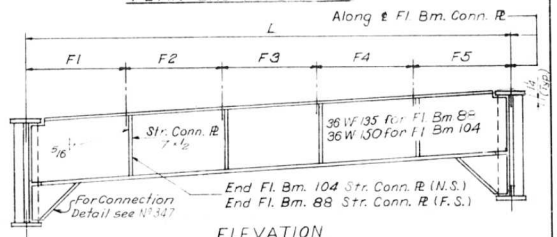
FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	F4	F5	A1	A2	A3	A4	A5	A6
88	32 1 13/16	6 4 15/16	6 4 15/16	6 4 15/16	6 4 15/16	6 4 15/1	89.45.21	89.24.16	89.27.46	89.31.06	89.34.29	89.57.56
89	32 1 3/8	6 4 9/16	6 5 1/8	6 5 1/8	6 5 1/8	6 5 9/1	89.43.25	89.44.29	89.47.54	89.51.19	89.54.42	90.00.00
90	32 2 5/8	6 4 15/16	6 5 5/16	6 5 5/16	6 5 5/16	6 5 11/1	89.37.12	89.15.53	89.21.27	89.27.0	89.32.30	90.00.00
91	32 4 1/4	6 4 11/16	6 5 11/16	6 5 11/16	6 5 11/16	6 6 1/	89.30.59	89.43.52	89.49.26	89.54.59	90.00.29	90.00.00
92	32 6 1/4	6 5 9/16	6 6 1/16	6 6 1/16	6 6 1/16	6 6 1/	89.24.46	88.58.57	89.07.18	89.15.35	89.23.49	90.00.00
93	32 8 5/8	6 5	6 6 9/16	6 6 9/16	6 6 9/16	6 7 7/	89.18.33	89.26.56	89.36.17	89.43.34	89.51.48	90.00.00
94	32 11 3/8	6 6 5/8	6 7 1/8	6 7 1/8	6 7 1/8	6 7 1/	89.12.20	89.54.55	90.03.16	90.11.33	90.19.47	90.00.00
95	33 2 9/16	6 6 3/4	6 7 3/4	6 7 3/4	6 7 3/4	6 8 9/1	89.06.08	89.16.01	89.21.07	89.32.15	89.43.08	90.00.00
96	33 6 1/8	6 8	6 8 7/16	6 8 7/16	6 8 7/16	6 8 3/4	88.59.56	89.38.9	89.48.07	89.59.09	90.11.07	90.00.00
97	33 10 1/16	6 8 9/16	6 9 1/4	6 9 1/4	6 9 1/4	6 9 13/1	88.53.44	89.07.09	89.20.29	89.33.44	89.46.54	90.00.00
98	34 2 3/8	6 9 9/16	6 10 1/16	6 10 1/16	6 10 1/16	6 10 1/2	88.47.32	88.29.17	88.45.07	89.0 .51	89.16.29	90.00.00
99	34 7 1/16	6 9 1/2	6 11 1/16	6 11 1/16	6 11 1/16	7 3/8	88.41.20	88.57.16	89.13.06	89.28.56	89.44.28	90.00.00
0	35 3/16	6 11 9/16	7 1/16	7 1/16	7 1/16	7 1/2	88.35.09	88.25.15	89.41.05	89.56.49	90.12.27	90.00.00
01	35 5 11/16	7 1/8	7 1 3/16	7 1 3/16	7 1 3/16	7 2	88.28.58	88.49.14	88.58.59	89.17.27	89.35.48	90.00.00
02	35 11 1/2	7 1 15/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/8	88.22.48	89.08.23	89.26.58	89.45.26	90.03.47	90.00.00
103	36 5 3/4	7 3	7 3 9/16	7 3 9/16	7 4		88.16.37	88.39.16	89.29.36	89.21.11	89.41.38	90.00.00
4	36 10	7 4 3/8	7 4 [illegible]	7 4 3/4	7 4 3/16	7 4 3/8	88.14.44	89.0 .05	89.20.49	89.41.24	90.01.50	90.00.04

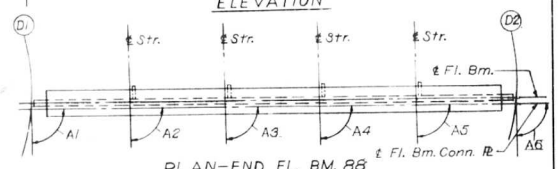
FL. BM.	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7
104	40 11	6 8	6 8	6 8	6 8	6 8	5 1 1/2	5 1 1/2	86.59.14	86.59.14	86.58.14	86.58.14	86.58.14	87.58.57	88.59.[illegible]
105	43 6 9/16	6 7 1/8	6 7 1/8	6 7 1/8	6 7 1/8	6 7 1/8	6 5 1/2	6 5 1/2	85.59.30	85.59.30	85.59.30	85.59.30	85.59.30	86.59.12	87.58.[illegible]



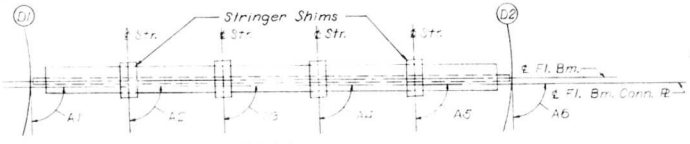
PLAN-END FL. BM. 104



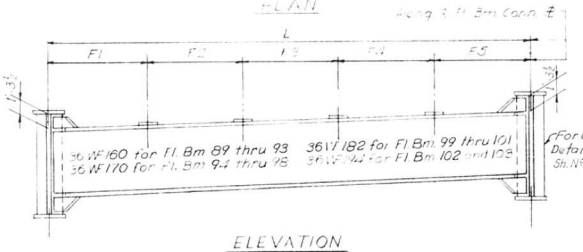
ELEVATION



PLAN-END FL. BM. 88

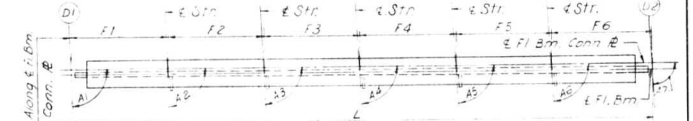


PLAN

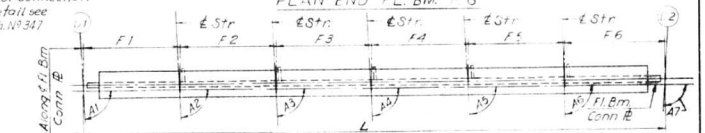


ELEVATION

INTERIOR FLOOR BEAM 89 THRU 103



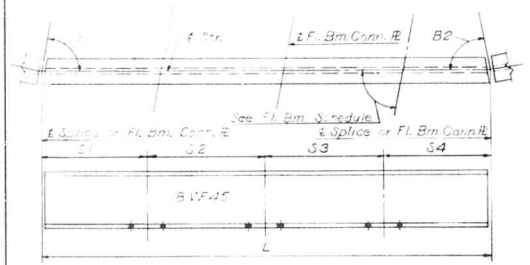
PLAN END FL. BM. 105



Note: For Elevation and Detail of End Fl. Bm. 105 and 106 See Sh. No.

PLAN END FL. BM. 105

END FLOOR BEAM 88, 104, 105 AND 106



TYPICAL STRINGER

Notes: Length L of Stringers and Fl. Bms. is correct as given in the table except the Increment lengths are given to the nearest "6". All dimensions are in the horizontal plane. For Connection Plate Details see Sh. N° 348 For Details of Stringers in Span D21 see Sheet No. 234

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D18 THRU D21
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 124 OF 526

DESIGNED BY A.T.A./C.
DRAWN BY DCH
CHECKED BY A.A.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I – 70	82-3HVF&E-1	ST. CLAIR	247	102
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

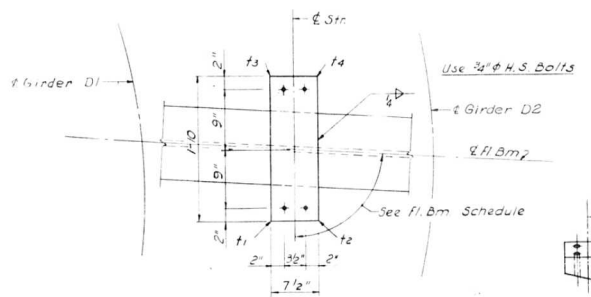
FLOOR BEAM 89 THRU 91	T1	T2	T3	T4
STR. 142 THRU 149	1 1/16	9/16	15/16	7/16

FLOOR BEAM 92 THRU 94	T1	T2	T3	T4
STR. 150 THRU 153	1 1/16	9/16	15/16	7/16

FLOOR BEAM 95 THRU 97	T1	T2	T3	T4
STR. 154 THRU 161	1 1/16	9/16	15/16	7/16

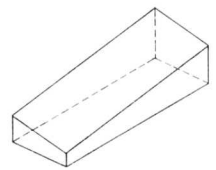
FLOOR BEAM 98 THRU 100	T1	T2	T3	T4
STR. 162 THRU 165	1 1/16	9/16	15/16	7/16

FLOOR BEAM 101 THRU 103	T1	T2	T3	T4
STR. 166 THRU 173	1 1/8	9/16	15/16	3/8

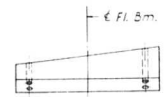


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS D18 THRU D20

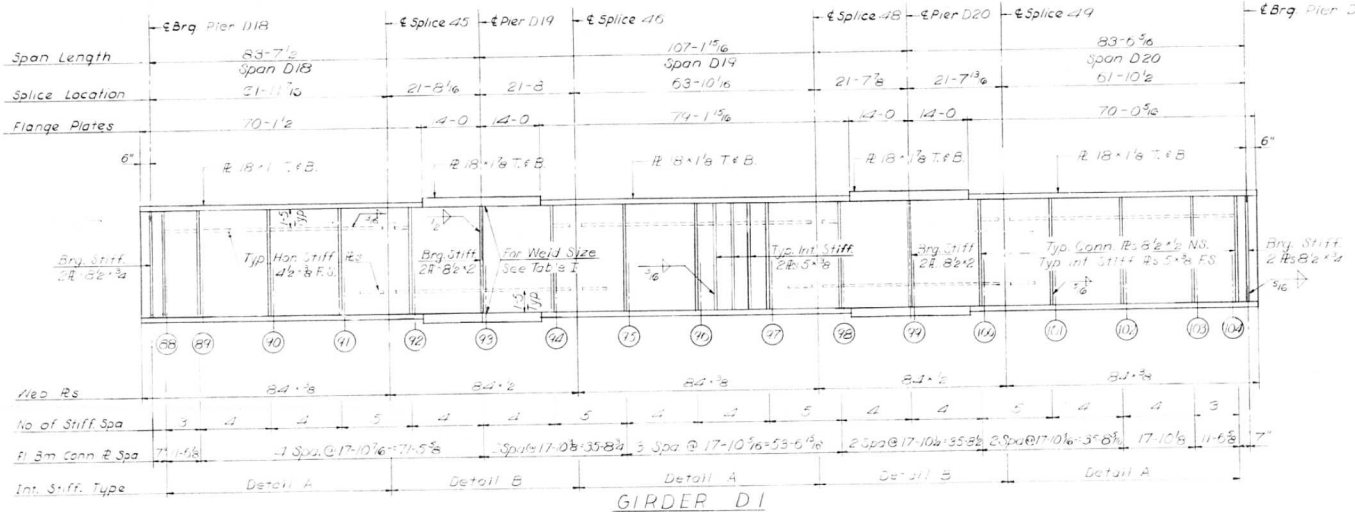
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F A I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS	SHEET 232 of 526

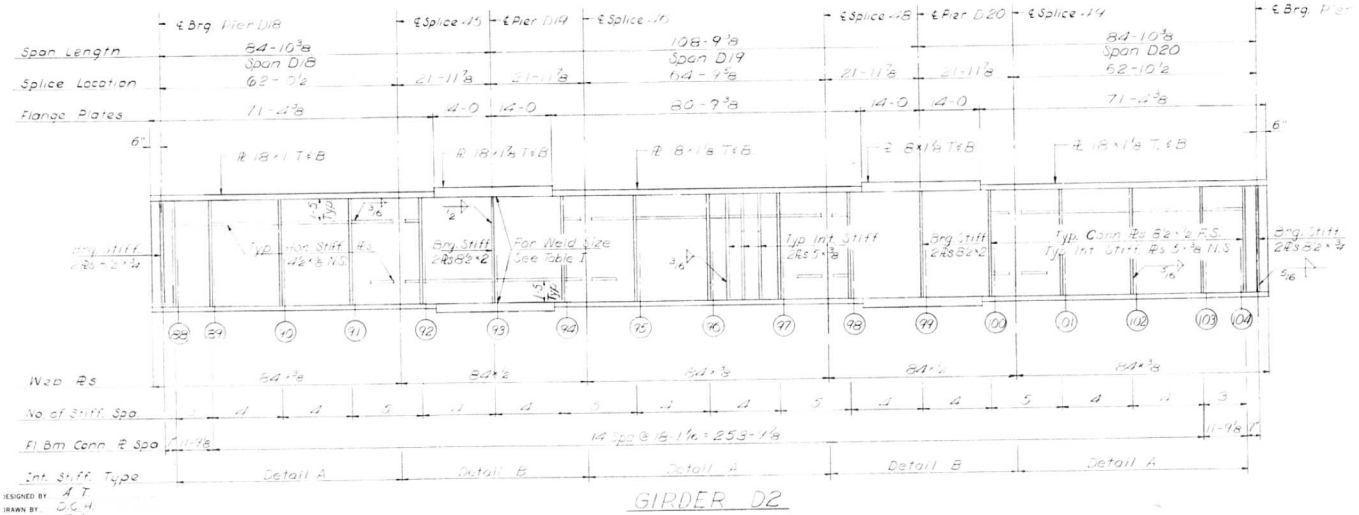
DESIGNED BY A J C
DRAWN BY D C H
CHECKED BY A S
APPROVED BY K A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	103
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1

SPANS D18 thru D20



GIRDER D2

SPANS D18 thru D20

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh No 230.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. Nos. 348, 349 and 350.

DESIGNED BY A.T.
DRAWN BY J.G.H.
CHECKED BY E.L.
APPROVED BY K.J.

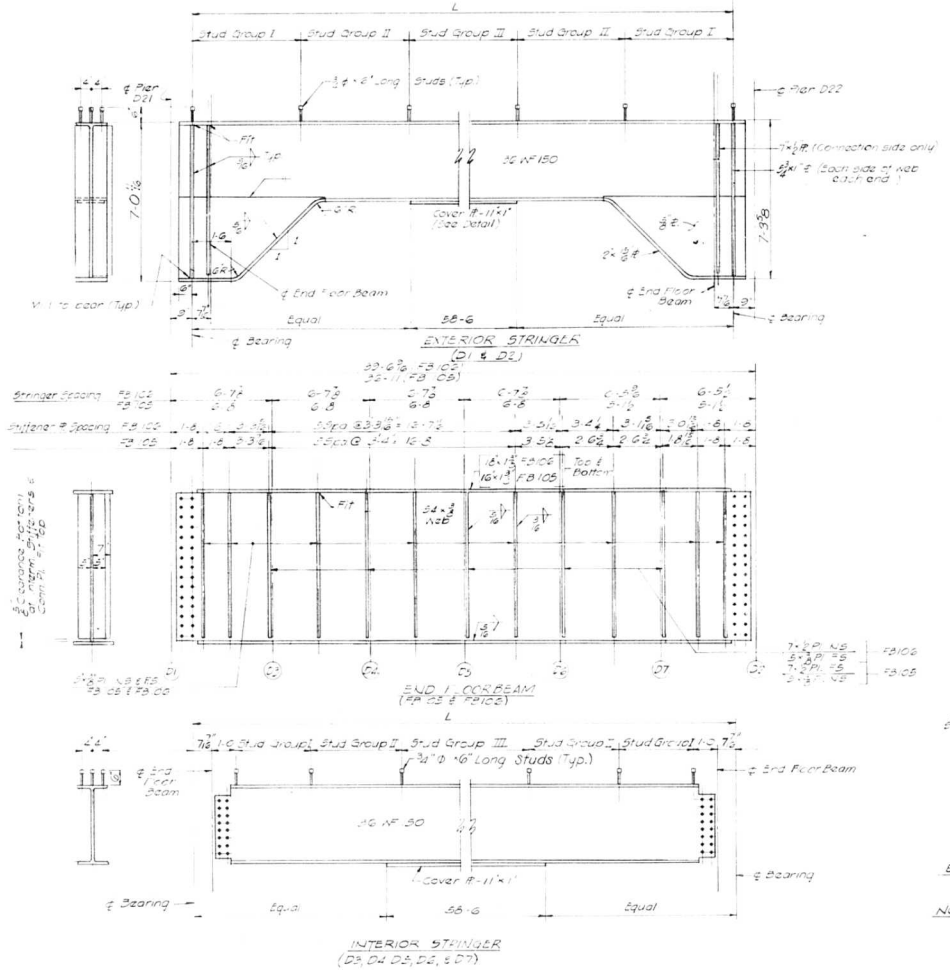
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D18 THRU D20
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 233 OF 526

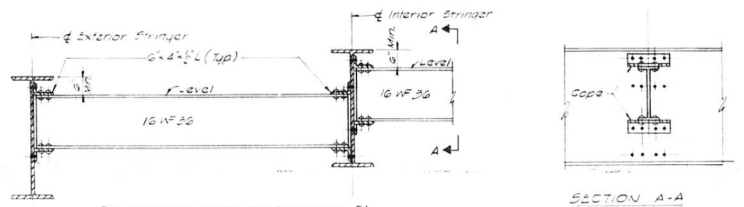
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	104
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



EXTERIOR STRINGER (D1 & D2)

END FLOOR BEAM (FB 105 & FB 106)

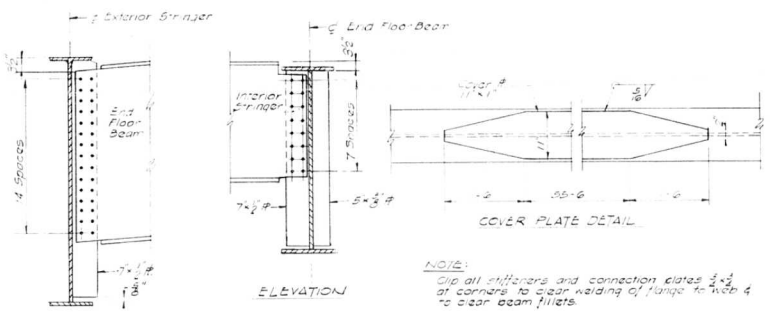
INTERIOR STRINGER (D3, D4, D5, D6, & D7)



Typ Connection for Interior Diaphragms D1

DIAPHRAGM DETAILS

SECTION A-A



ELEVATION

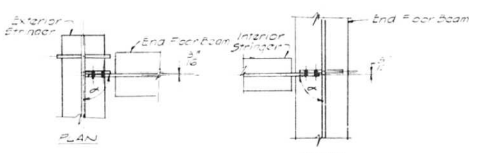
ELEVATION

COVER PLATE DETAIL

NOTE:
Clip all stiffeners and connection plates ¾"x¾" at corners to clear welding of flange to web & to clear beam fillets.



DEAD LOAD DEFLECTION DIAGRAM FOR END FLOOR BEAM
(Wt. of Concrete only)



PLAN

END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

PLAN

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION

NOTES:
For Expansion Device Detail see Sheet No. 363
For Framing Plan see Sheet No. 230

NOTE: For Angle ∝ see Floor Beam Schedule Sheet No. 231

STRINGER LENGTH & SHEAR CONN SPACING				
STRINGER	LENGTH (L)	GROUP I	GROUP II	GROUP III
D1	75-9⅛	28@5½"	20@7½"	30@10"-
D3	75-11 15/16	24@5½"	20@7½"	31@10"+
D4	76-2¾	24@5½"	22@7½"	28@10"-
D5	76-5 9/16	25@5½"	21@7½"	29@10"-
D6	76-8⅜	28@5½"	21@7½"	26@10"-
D7	76-10 7/16	28@5½"	21@7½"	26@10"-
D2	77-0¾	28@5½"	22@7½"	28@10"+

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN D21

POPLAR STREET BRIDGE APPROACHES

ROADWAY "D"

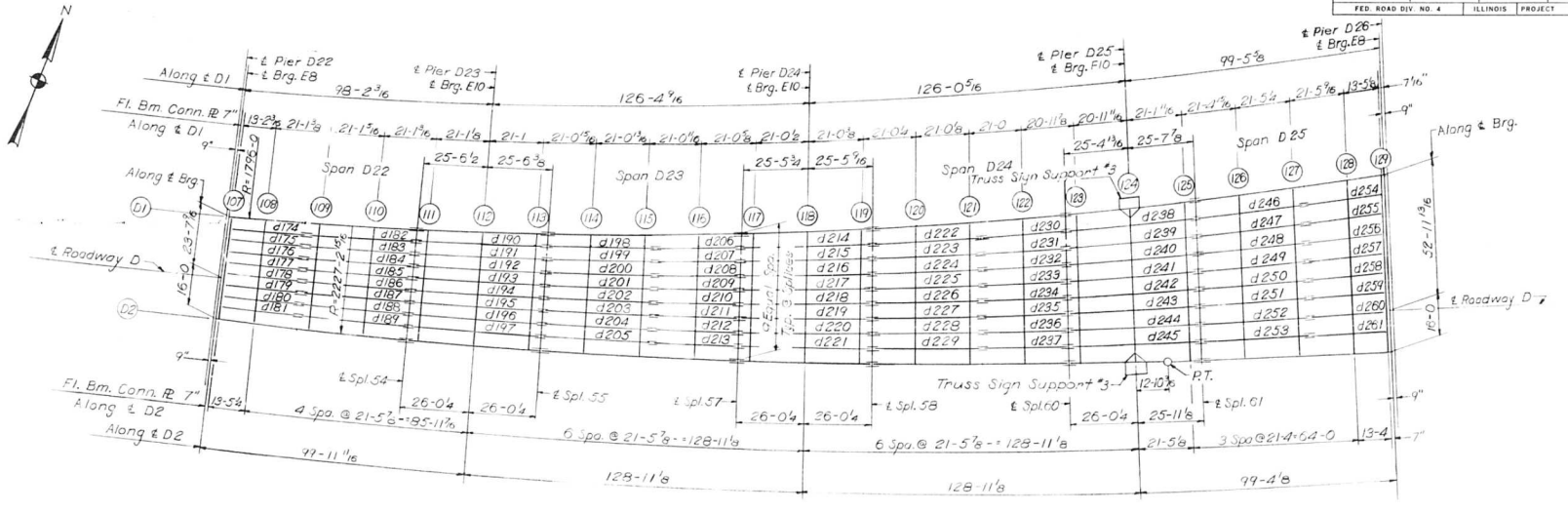
FAI RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 234 of 526

DESIGNED BY
DRAWN BY
CHECKED BY L.W.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	33
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS D22 THRU D25

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	445.380	448.249	2.869
FLOOR BEAM 107	445.376	448.247	2.871
FLOOR BEAM 108	445.268	448.180	2.912
FLOOR BEAM 109	445.096	448.073	2.977
FLOOR BEAM 110	444.924	447.966	3.042
SPLICE 54	444.788	447.882	3.094
FLOOR BEAM 111	444.750	447.860	3.110
FLOOR BEAM 112	444.569	447.753	3.184
FLOOR BEAM 113	444.387	447.646	3.259
SPLICE 55	444.349	447.624	3.275
FLOOR BEAM 114	444.243	447.584	3.341
FLOOR BEAM 115	444.108	447.534	3.426
FLOOR BEAM 116	443.973	447.483	3.510
SPLICE 57	443.867	447.444	3.577
FLOOR BEAM 117	443.858	447.455	3.597
FLOOR BEAM 118	443.817	447.506	3.689

	GIR. D1	GIR D2	DIFF
FLOOR BEAM 119	443.775	447.558	3.783
SPLICE 58	443.766	447.569	3.803
FLOOR BEAM 120	443.809	447.663	3.854
FLOOR BEAM 121	443.863	447.781	3.918
FLOOR BEAM 122	443.917	447.899	3.982
SPLICE 60	443.960	447.992	4.032
FLOOR BEAM 123	444.017	448.008	3.991
FLOOR BEAM 124	444.300	448.083	3.783
FLOOR BEAM 125	444.584	448.157	3.573
SPLICE 61	444.645	448.173	3.528
FLOOR BEAM 126	444.918	448.240	3.322
FLOOR BEAM 127	445.264	448.326	3.062
FLOOR BEAM 128	445.611	448.412	2.801
FLOOR BEAM 129	445.828	448.465	2.637
CL. BRG.	445.837	448.468	2.631

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. see Sketch Sheet NO. 183
For Truss Sign Support Detail see Sh No 360.

BILL OF MATERIAL		
*Structural Steel	Lbs.	1,016,290

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 24,660 Lbs.

DESIGNED BY R.M.R.
DRAWN BY J.G.H.
CHECKED BY A.J.C.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS D22 THRU D25
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

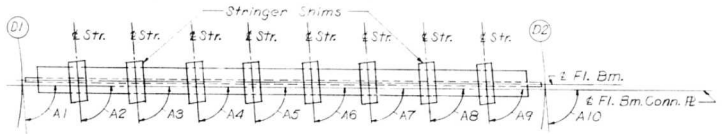
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 235 OF 526

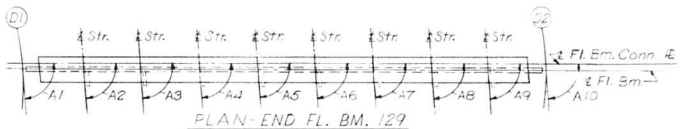
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I – 70	82-3HVFBE-1	ST CLAIR	247	106
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM DIMENSIONS

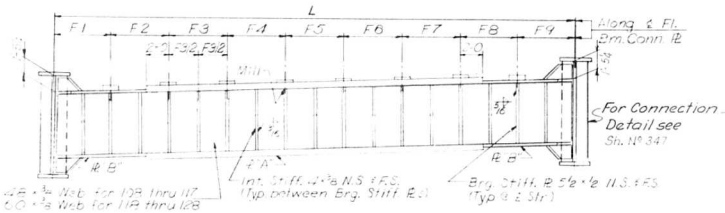
FL BM	L	F1	F2	F3	F4	F5	F6	F7	F8	F9	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	PLATE A ℄ FL BM	PLATE B ℄ FL BM
107	39'-7 13/16"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	4'-4 7/8"	87.42.59	87.30.14	87.45.59	88.01.41	88.17.18	88.32.52	88.48.22	89.03.48	89.19.11	89.57.56	12 × 1	12 × 3/4
108	40 2 1/8	4 4 7/8	4 5 9/16	4 5 9/16	4 5 9/16	4 5 9/16	4 5 9/16	4 5 9/16	4 5 9/16	4 6 3/16	87.40.33	87.53.02	88.08.47	88.24.29	88.40.06	88.55.40	89.11.10	89.26.36	89.41.59	90.00.00	12 × 1/2	12 × 3/4
109	41 11/16	4 6 3/16	4 6 3/4	4 6 3/4	4 6 3/4	4 6 3/4	4 6 3/4	4 6 3/4	4 6 3/4	4 7 1/4	87.33.18	87.18.38	87.35.46	87.52.10	88.09.50	88.26.46	88.43.38	89.00.26	89.17.10	90.00.00	12 × 1/2	12 × 3/4
110	41 11 3/4	4 6 9/16	4 8	4 8	4 8	4 8	4 8	4 8	4 8	4 9 3/16	87.26.04	87.51.48	88.08.56	88.26.00	88.43.00	88.59.56	89.16.48	89.33.36	89.50.20	90.00.00	12 × 5/8	12 × 7/8
111	42 11 5/16	4 8 9/16	4 9 1/4	4 9 1/4	4 9 1/4	4 9 1/4	4 9 1/4	4 9 1/4	4 9 1/4	4 9 7/8	87.18.51	86.57.30	87.16.26	87.35.18	87.54.05	88.12.47	88.31.25	88.49.58	89.08.27	90.00.00	12 × 3/4	12 × 7/8
112	43 11 7/16	4 8 7/16	4 10 5/8	4 10 5/8	4 10 5/8	4 10 5/8	4 10 5/8	4 10 5/8	4 10 5/8	5 1/2	87.11.38	87.30.40	87.49.36	88.08.28	88.27.15	88.45.57	89.04.35	89.23.08	89.41.37	90.00.00	12 × 3/4	12 × 1
113	45 1/8	4 11 5/16	5	5	5	5	5	5	5	5 5/8	87.04.27	88.03.50	88.22.46	88.41.38	89.00.25	89.19.07	89.37.45	89.56.18	90.14.47	90.00.00	12 × 3/4	12 × 1
114	46 1 5/16	5 1/16	5 1 1/2	5 1 1/2	5 1 1/2	5 1 1/2	5 1 1/2	5 1 1/2	5 1 1/2	5 2 11/16	86.57.16	87.09.35	87.30.20	87.50.59	88.11.32	88.32.01	88.52.24	89.12.42	89.32.54	90.00.00	12 × 7/8	12 × 1 1/8
115	47 3	5 2 7/16	5 3	5 3	5 3	5 3	5 3	5 3	5 3	5 3 1/2	86.50.06	87.42.45	88.03.30	88.24.09	88.44.42	89.05.11	89.25.34	89.45.51	90.06.04	90.00.00	12 × 7/8	12 × 1 1/8
116	48 5 3/16	5 3 11/16	5 4 5/8	5 4 5/8	5 4 5/8	5 4 5/8	5 4 5/8	5 4 5/8	5 4 5/8	5 5 3/8	86.42.58	87.05.15	87.27.26	87.49.32	88.11.32	88.33.25	88.55.13	89.16.55	89.38.31	90.00.00	12 × 2	12 × 1 1/4
117	49 7 15/16	5 5 9/16	5 6 1/4	5 6 1/4	5 6 1/4	5 6 1/4	5 6 1/4	5 6 1/4	5 6 1/4	5 6 13/16	86.35.50	86.19.29	86.43.17	87.06.59	87.30.34	87.54.03	88.17.25	88.40.40	89.03.49	90.00.00	12 × 2	12 × 1 1/4
118	50 11 3/16	5 5 3/4	5 7 15/16	5 7 15/16	5 7 15/16	5 7 15/16	5 7 15/16	5 7 15/16	5 7 15/16	5 9 3/4	86.28.44	86.52.09	87.16.27	87.40.09	88.03.44	88.27.13	88.50.35	89.13.50	89.36.59	90.00.00	12 × 1 1/8	12 × 1 1/8
119	52 2 15/16	5 9	5 9 11/16	5 9 11/16	5 9 11/16	5 9 11/16	5 9 11/16	5 9 11/16	5 9 11/16	5 10 1/4	86.21.38	87.05.49	87.49.37	88.13.19	88.36.54	89.00.23	89.23.45	89.47.00	90.10.09	90.00.00	12 × 1 1/8	12 × 1 1/8
120	53 7 3/16	5 10 1/16	5 11 1/2	5 11 1/2	5 11 1/2	5 11 1/2	5 11 1/2	5 11 1/2	5 11 1/2	6 11/16	86.14.34	86.31.48	86.57.23	87.22.51	87.48.11	88.13.25	88.38.30	89.03.28	89.28.18	90.00.00	12 × 1 1/8	12 × 1
121	55	6 13/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 5/16	6 1 13/16	86.07.31	87.04.58	87.30.33	87.56.01	88.21.21	88.46.35	89.11.40	89.36.38	90.01.28	90.00.00	12 × 1 1/8	12 × 1
122	56 5 1/4	6 2 3/8	6 3 1/4	6 3 1/4	6 3 1/4	6 3 1/4	6 3 1/4	6 3 1/4	6 3 1/4	6 4 1/16	86.00.29	86.27.39	86.54.40	87.21.33	87.48.19	88.14.56	88.41.25	89.07.45	89.33.57	90.00.00	12 × 1 3/8	12 × 1
123	57 11 1/16	6 4 9/16	6 5 1/4	6 5 1/4	6 5 1/4	6 5 1/4	6 5 1/4	6 5 1/4	6 5 1/4	6 5 13/16	85.53.29	85.42.00	86.10.48	86.39.30	87.08.07	87.36.36	88.04.59	88.33.16	89.01.25	90.00.00	12 × 2	12 × 1 1/8
124	59 5 3/8	6 5 1/8	6 7 5/16	6 7 5/16	6 7 5/16	6 7 5/16	6 7 5/16	6 7 5/16	6 7 5/16	6 8 15/16	85.46.30	86.15.10	86.43.58	87.12.40	87.41.17	88.09.46	88.38.09	89.06.26	89.34.38	90.00.00	12 × 2	12 × 1 3/8
125	61 1/2	6 8 11/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 7/16	6 9 13/16	85.25.52	86.35.00	87.03.48	87.32.31	88.01.07	88.29.36	88.58.00	89.26.16	89.54.25	90.00.00	12 × 2 1/8	12 × 1 1/4
126	62 10 1/2	6 10 1/2	7	7	7	7	7	7	7	7	84.44.53	85.12.00	85.47.52	86.23.47	86.59.44	87.35.45	88.11.47	88.47.51	89.23.55	90.00.00	12 × 2 1/4	12 × 1 3/8
127	64 11 9/16	7 2 1/8	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	7 2 11/16	84.03.51	85.12.00	85.47.52	86.23.47	86.59.44	87.35.45	88.11.47	88.47.51	89.23.55	90.00.00	12 × 2 3/8	12 × 1 1/2
128	67 3 3/4	7 5 1/16	7 5 13/16	7 5 13/16	7 5 13/16	7 5 13/16	7 5 13/16	7 5 13/16	7 5 13/16	7 5 13/16	83.22.46	84.09.34	84.53.07	85.36.47	86.20.32	87.04.20	87.48.12	88.32.06	89.16.03	90.00.00	12 × 2 3/8	12 × 1 1/2
129	68 10 15/16	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	7 7 7/8	82.57.04	84.09.34	84.53.07	85.36.47	86.20.32	87.04.20	87.48.12	88.32.06	89.16.03	90.00.00	12 × 5/8	12 × 7/8



PLAN

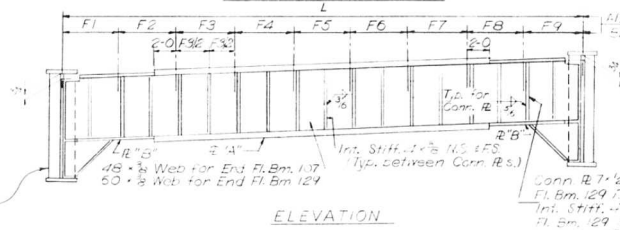


PLAN-END FL. BM. 129



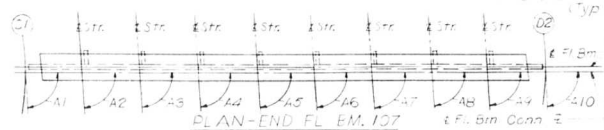
ELEVATION

INTERIOR FLOOR BEAM 108 THRU 128



ELEVATION

Notes.
Length L of Floor Beams is correct as given in the table except the increment lengths are given to the nearest ⅛". All dimensions are in the horizontal plane. For Intermediate Stiffener, Brg. Stiffener and Connection Plate Details see Sheet No. 348



PLAN-END FL. BM. 107

END FLOOR BEAM 107 AND 129

DESIGNED BY A.T. & A.J.C.
DRAWN BY D.S.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FLOOR BEAM SCHEDULE

SPANS D22 THRU D25

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F A I RT 70 ST CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

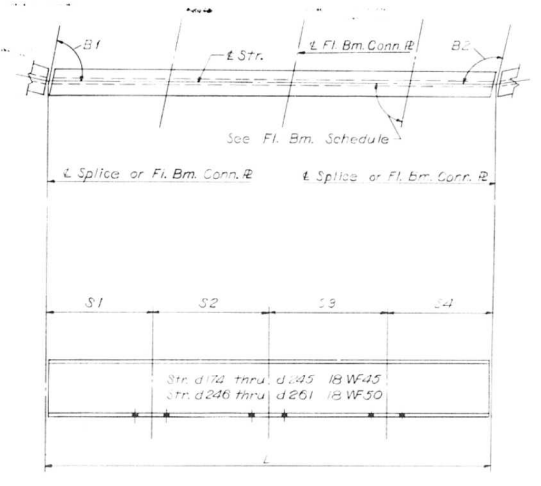
SHEET 236 OF 576

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF&E-1	ST. CLAIR	247	107
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
174	29 10 7/8"	13 2 9/16"			16 8 1/4"	87.30.14"	91.40.48"
175	29 11 9/16	13 2 7/8			16 8 11'	87 15.59	91.25.02
176	30 1/4	13 3 1/4			16 9 1/16	88.01.41	91.09.21
177	30 1	13 3 9/16			16 9 7/16	88.17.18	90.53.44
178	30 1 3/4	13 3 7/8			16 9 13/16	88.32.52	90.38.10
179	30 2 1/2	13 4 1/4			16 10 1/4	88.48.22	90.22.40
180	30 3 1/4	13 4 9/16			16 10 5/8	89.03.48	90.07.14
181	30 4	13 4 15/16			16 11 1/16	89.19.11	89.51.51
182	42 3 1/2	4 5 9/16	21 1 13/16		16 8 1/8	87.11.38	91.42.02
183	42 4 1/2	4 5 11/16	21 2 1/4		16 8 1/2	87.28.46	91.24.54
184	42 5 7/16	4 5 3/4	21 2 3/4		16 8 15/16	87.45.50	91.07.50
185	42 6 1/2	4 5 7/8	21 3 1/4		16 9 5/16	88.02.51	90.50.50
186	42 7 1/2	4 5 15/16	21 3 3/4		16 9 3/4	88.19.47	90.33.53
187	42 8 1/2	4 6 1/16	21 4 1/4		16 10 3/16	88.36.39	90.17.01
188	42 9 9/16	4 6 3/16	21 4 13/16		16 10 5/8	88.53.27	90.00.14
189	42 10 5/8	4 6 5/16	21 5 5/16		16 11	89.10.10	89.43.30
190	51 2 1/16	4 5 9/16	21 1 11/16	21 1 7/16	4 5 7/16	86.50.30	91.49.10
191	51 3 5/16	4 5 5/8	21 2 3/16	21 2	4 5 9/16	87.09.26	91.30.14
192	51 4 9/16	4 5 3/4	21 2 11/16	21 2 1/2	4 5 11/16	87.28.18	91.11.22
193	51 5 7/8	4 5 7/8	21 3 3/16	21 3 1/16	4 5 13/16	87.47.05	90.52.35
194	51 7 1/8	4 5 15/16	21 3 11/16	21 3 9/16	4 5 7/8	88.05.48	90.33.53
195	51 8 7/16	4 6 1/16	21 4 3/16	21 4 1/8	4 6	88.24.25	90.15.15
196	51 9 3/4	4 6 3/16	21 4 3/4	21 4 11/16	4 6 1/8	88.42.59	89.56.42
197	51 11 1/8	4 6 1/4	21 5 5/16	21 5 1/4	4 6 1/4	89.01.27	89.38.14
198	42 2 3/4	16 8 1/16	21 1 5/16		4 5 3/8	86.43.25	92.10.15
199	42 3 13/16	16 8 7/16	21 1 13/16		4 5 1/2	87.04.09	91.49.31
200	42 4 7/8	16 8 7/8	21 2 3/8		4 5 5/8	87.24.48	91.28.52
201	42 5 15/16	16 9 1/4	21 2 15/16		4 5 3/4	87.45.22	91.08.18
202	42 7 1/16	16 9 11/16	21 3 1/2		4 5 7/8	88.05.51	90.47.49
203	42 8 3/16	16 10 1/8	21 4 1/16		4 6	88.26.14	90.27.26
204	42 9 3/8	16 10 9/16	21 4 5/8		4 6 1/8	88.46.31	90.07.09
205	42 10 1/2	16 11	21 5 1/4		4 6 1/4	89.06.43	89.46.57
206	33 3 9/16	16 7 7/8			16 7 11/16	86.39.05	92.28.35
207	33 4 7/16	16 8 5/16			16 8 1/8	87.01.16	92.06.23
208	33 5 5/16	16 8 11/16			16 8 5/8	87.23.22	91.44.18
209	33 6 3/16	16 9 1/8			16 9 1/16	87.45.21	91.22.18
210	33 7 1/8	16 9 5/8			16 9 1/2	88.07.15	91.00.24
211	33 8 1/16	16 10 1/16			16 10	88.29.03	90.38.37
212	33 9	16 10 1/2			16 10 1/2	88.50.45	90.16.55
213	33 9 15/16	16 11			16 10 15/16	89.12.20	89.55.19
214	51 11/16	4 5 7/16	21 1 1/8	21 13/16	4 5 5/16	86.12.29	92.27.11
215	51 2 1/16	4 5 9/16	21 1 11/16	21 1 7/16	4 5 7/16	86.36.18	92.03.23
216	51 3 7/16	4 5 5/8	21 2 1/4	21 2	4 5 9/16	86.59.59	91.39.41
217	51 4 7/8	4 5 3/4	21 2 13/16	21 2 5/8	4 5 11/16	87.23.35	91.16.06

STR	L	S1	S2	S3	S4	B1	B2
218	51 6 3/8	4 5 7/8	21 3 3/8	21 3 1/4	4 5 13/16	87.47.03	90.52.37
219	51 7 13/16	4 6	21 4	21 3 7/8	4 5 15/16	88.10.25	90.29.15
220	51 9 3/8	4 6 1/8	21 4 9/16	21 4 1/2	4 6 1/8	88.33.41	90.06.00
221	51 10 7/8	4 6 1/4	21 5 3/16	21 5 3/16	4 6 1/4	88.56.49	89.42.52
222	42 1 7/16	16 7 9/16	21 5/8		4 5 1/4	86.05.38	92.48.02
223	42 2 5/8	16 8	21 1 1/4		4 5 3/8	86.31.13	92.22.27
224	42 3 7/8	16 8 1/2	21 1 7/8		4 5 1/2	86.56.41	91.56.59
225	42 5 1/8	16 8 15/16	21 2 1/2		4 5 11/16	87.22.01	91.31.39
226	42 6 3/8	16 9 7/16	21 3 1/8		4 5 13/16	87.47.14	91.06.26
227	42 7 5/8	16 9 15/16	21 3 13/16		4 5 15/16	88.12.20	90.41.20
228	42 9	16 10 7/16	21 4 7/16		4 6 1/16	88.37.18	90.16.22
229	42 10 5/16	16 10 15/16	21 5 1/8		4 6 1/4	89.02.08	89.51.32
230	33 2 1/2	16 7 3/8			16 7 3/16	86.01.29	93.06.11
231	33 3 1/2	16 7 13/16			16 7 11/16	86.28.30	92.39.10
232	33 4 1/2	16 8 5/16			16 8 3/16	86.55.23	92.12.16
233	33 5 1/2	16 8 13/16			16 8 11/16	87.22.09	91.45.31
234	33 6 1/2	16 9 5/16			16 9 3/16	87.48.46	91.18.54
235	33 7 9/16	16 9 13/16			16 9 3/4	88.15.14	90.52.25
236	33 8 11/16	16 10 3/8			16 10 5/16	88.41.35	90.26.05
237	33 9 13/16	16 10 7/8			16 10 7/8	89.07.47	89.59.53
238	51 1 11/16	4 5 5/16	21 7/16	21 1 7/8	4 6 1/8	85.35.00	93.25.00
239	51 2 3/4	4 5 7/16	21 1 1/16	21 2 1/4	4 6 1/16	86.03.48	92.56.12
240	51 3 7/8	4 9/16	21 1 11/16	21 2 9/16	4 6 1/16	86.32.31	92.27.29
241	51 5	4 5 11/16	21 2 5/16	21 2 15/16	4 6 1/16	87.01.07	91.58.53
242	51 6 3/16	4 5 13/16	21 3	21 3 3/8	4 6	87.29.37	91.30.24
243	51 7 3/8	4 5 15/16	21 3 11/16	21 3 3/4	4 6	87.58.00	91.02.00
244	51 8 11/16	4 6 1/8	21 4 3/8	21 4 3/16	4 6	88.26.16	90.33.44
245	51 10	4 6 1/4	21 5 1/8	21 4 5/8	4 6	88.54.25	90.05.35
246	42 9 13/16	16 10 11/16	21 4 7/8		4 6 3/16	85.12.00	94.48.00
247	42 9 3/8	16 10 9/16	21 4 11/16		4 6 1/8	85.47.52	94.12.08
248	42 9	16 10 3/8	21 4 1/2		4 6 1/8	86.23.47	93.36.13
249	42 8 11/16	16 10 1/4	21 4 3/8		4 6 1/16	86.59.45	93.00.15
250	42 8 7/16	16 10 3/16	21 4 1/4		4 6 1/16	87.35.45	92.24.15
251	42 8 1/4	16 10 1/8	21 4 1/8		4 6	88.11.47	91.48.13
252	42 8 1/8	16 10 1/16	21 4 1/16		4 6	88.47.51	91.12.09
253	42 8	16 10	21 4		4 6	89.23.55	90.36.05
254	30 3 7/8	16 11 1/16			13 4 13/16	84.09.34	95.50.26
255	30 3 7/16	16 10 13/16			13 4 5/8	84.53.07	95.06.53
256	30 3 1/16	16 10 9/16			13 4 7/16	85.36.47	94.23.13
257	30 2 3/4	16 10 7/16			13 4 5/16	86.20.31	93.39.29
258	30 2 1/2	16 10 1/4			13 4 3/16	87.04.20	92.55.40
259	30 2 1/4	16 10 1/8			13 4 1/8	87.48.12	92.11.48
260	30 2 1/8	16 10 1/16			13 4 1/16	88.32.06	91.27.54
261	30 2	16 10			13 4	89.16.03	+90.43.57



TYPICAL STRINGER

Notes:
Length L of stringers is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SCHEDULE
SPANS D22 THRU D25
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 237 OF 526

DESIGNED BY A.T. & A.I.C.
DRAWN BY
CHECKED BY A.A.
APPROVED BY A.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 70	82-3HVFBE-1	ST. CLAIR	247	108
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 108 THRU 110	T1	T2	T3	T4
STR. 174 THRU 189	1 1/8	9/16	15/16	3/8

FLOOR BEAM 111 THRU 113	T1	T2	T3	T4
STR. 190 THRU 197	1 1/8	9/16	15/16	3/8

FLOOR BEAM 114	T1	T2	T3	T4
STR.				
198	1 1/16	9/16	15/16	7/16
199	1 1/16	9/16	15/16	7/16
200	1 1/16	9/16	15/16	7/16
201	1 1/16	1/2	1	7/16
202	1 1/16	1/2	1	7/16
203	1 1/16	1/2	1	7/16
204	1 1/16	1/2	1	7/16
205	1 1/16	1/2	1	7/16

FLOOR BEAM 115	T1	T2	T3	T4
STR.				
198	1 1/16	9/16	15/16	7/16
199	1 1/16	9/16	15/16	7/16
200	1 1/16	9/16	15/16	7/16
201	1 1/16	1/2	1	7/16
202	1 1/16	1/2	1	7/16
203	1 1/16	1/2	1	7/16
204	1 1/16	1/2	1	7/16
205	1 1/16	1/2	1	7/16

FLOOR BEAM 116	T1	T2	T3	T4
206	1 1/16	9/16	15/16	7/16
207	1 1/16	9/16	15/16	7/16
208	1 1/16	9/16	15/16	7/16
209	1 1/16	1/2	1	7/16
210	1 1/16	1/2	1	7/16
211	1 1/16	1/2	1	7/16
212	1 1/16	1/2	1	7/16
213	1 1/16	1/2	1	7/16

FLOOR BEAM 117	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 118	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 119	T1	T2	T3	T4
STR.				
214	1 1/16	1/2	1	7/16
215	1 1/16	1/2	1	7/16
216	1	1/2	1	1/2
217	1	1/2	1	1/2
218	1	1/2	1	1/2
219	1	7/16	1 1/16	1/2
220	1	7/16	1 1/16	1/2
221	1	7/16	1 1/16	1/2

FLOOR BEAM 120 THRU 122	T1	T2	T3	T4
STR. 222 THRU 237	1	7/16	1 1/16	1/2

FLOOR BEAM 123	T1	T2	T3	T4
STR.				
238	7/8	3/8	1 1/8	5/8
239	7/8	3/8	1 1/8	5/8
240	7/8	3/8	1 1/8	5/8
241	15/16	3/8	1 1/8	9/16
242	15/16	3/8	1 1/8	9/16
243	15/16	7/16	1 1/16	9/16
244	15/16	7/16	1 1/16	9/16
245	15/16	7/16	1 1/16	9/16

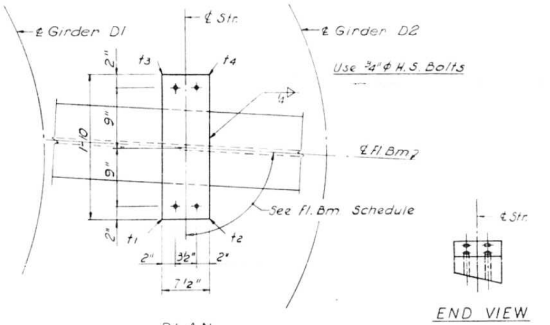
FLOOR BEAM 124	T1	T2	T3	T4
STR. 238	7/8	3/8	1 1/8	5/8
239	7/8	3/8	1 1/8	5/8
240	7/8	3/8	1 1/8	5/8
241	7/8	7/16	1 1/16	5/8
242	7/8	7/16	1 1/16	5/8
243	15/16	7/16	1 1/16	9/16
244	15/16	7/16	1 1/16	9/16
245	15/16	7/16	1 1/16	9/16

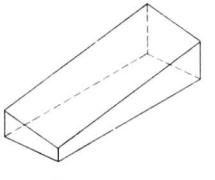
FLOOR BEAM 125	T1	T2	T3	T4
STR.				
238	13/16	3/8	1 1/8	11/16
239	7/8	7/16	1 1/16	5/8
240	7/8	7/16	1 1/16	5/8
241	7/8	7/16	1 1/16	5/8
242	7/8	7/16	1 1/16	5/8
243	7/8	7/16	1 1/16	5/8
244	15/16	7/16	1 1/16	9/16
245	15/16	1/2	1	9/16

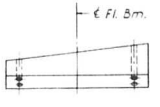
FLOOR BEAM 126	T1	T2	T3	T4
STR.				
246	13/16	3/8	1 1/8	11/16
247	13/16	3/8	1 1/8	11/16
248	13/16	7/16	1 1/16	11/16
249	13/16	7/16	1 1/16	11/16
250	7/8	7/16	1 1/16	5/8
251	7/8	7/16	1 1/16	5/8
252	7/8	1/2	1	5/8
253	7/8	1/2	1	5/8

FLOOR BEAM 127	T1	T2	T3	T4
STR.				
246	3/4	7/16	1 1/16	3/4
247	3/4	7/16	1 1/16	3/4
248	13/16	7/16	1 1/16	11/16
249	13/16	7/16	1 1/16	11/16
250	13/16	1/2	1	11/16
251	13/16	1/2	1	11/16
252	7/8	1/2	1	5/8
253	7/8	1/2	1	5/8

FLOOR BEAM 128	T1	T2	T3	T4
STR.				
254	3/4	7/16	1 1/16	3/4
255	3/4	7/16	1 1/16	3/4
256	3/4	7/16	1 1/16	3/4
257	13/16	1/2	1	11/16
258	13/16	1/2	1	11/16
259	13/16	1/2	1	11/16
260	13/16	1/2	1	11/16
261	7/8	9/16	15/16	5/8




ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS D22 THRU D25
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

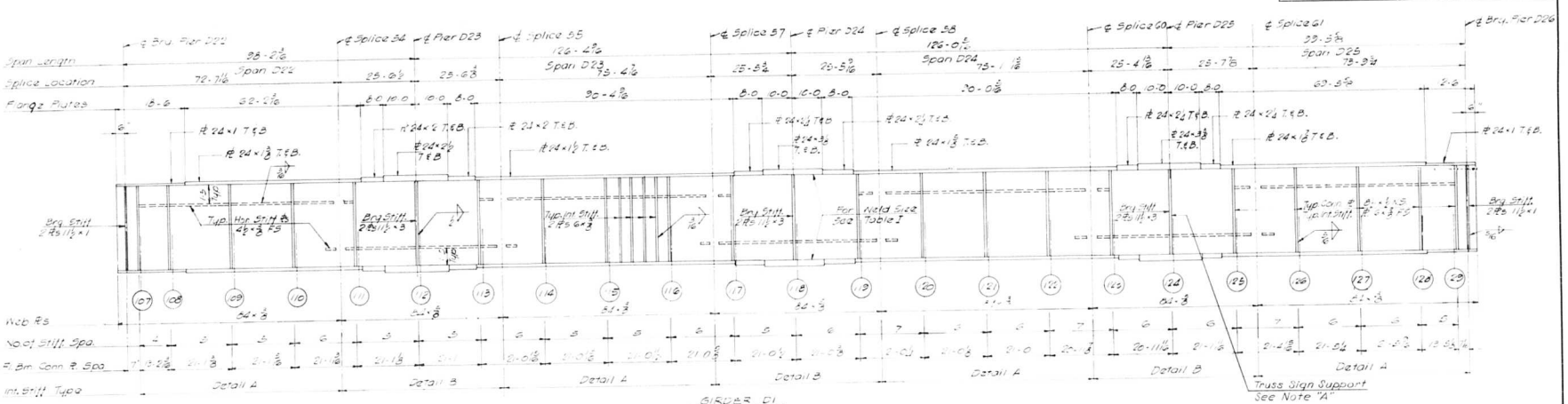
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

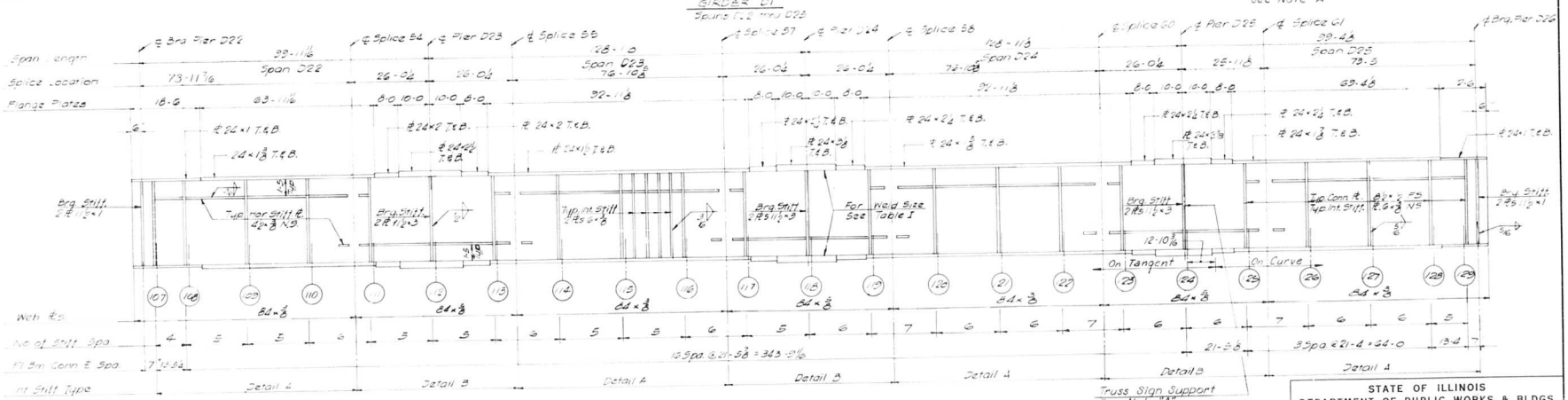
SHEET 238 of 526

DESIGNED BY A J C
DRAWN BY
CHECKED BY A S
APPROVED BY K A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF & E-1	ST CLAIR	247	109
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1
Spans D22 thru D25



GIRDER D2
Spans D22 thru D25

Note "A"
Interior Stiffeners should be moved if necessary to clear Truss Sign Support Connection Plate.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 235.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. Nos. 348, 349 and 350.

For Truss Sign Support Detail see Sh. No. 360.

DESIGNED BY A.T.
DRAWN BY T.L.
CHECKED BY K.A.
APPROVED BY

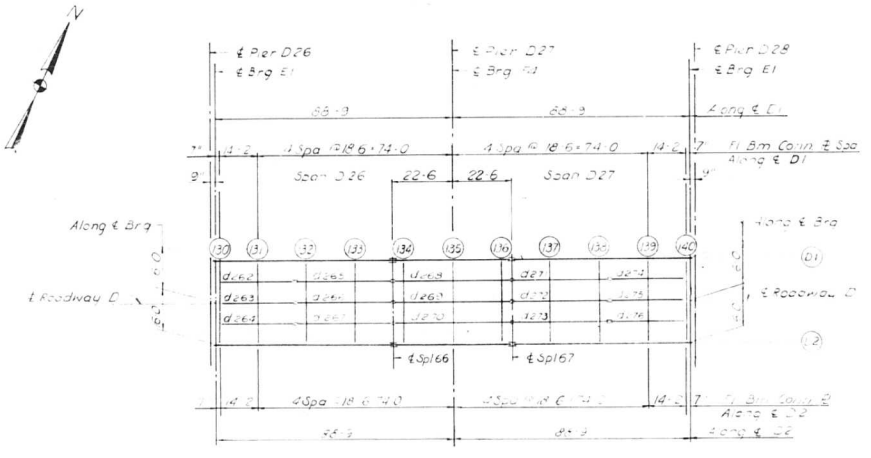
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D22 THRU D25
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 23 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	110
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D26 AND D27

LOCATION TOP OF GIRDER WEB

		GIR. D1	GIR. D2	GIRD.
CL. BRG.		447.984	447.474	.490
FLOOR BEAM	130	447.993	448.4[illegible]	.4[illegible]
FLOOR BEAM	131	448.770	[illegible]	[illegible]
FLOOR BEAM	132	448.[illegible]	[illegible]	[illegible]
FLOOR BEAM	133	448.911	[illegible]	.1[illegible]
SPLICE	66	449.04[illegible]	[illegible]	.[illegible]
FLOOR BEAM	134	449.107	449.[illegible]	.[illegible]
FLOOR BEAM	135	449.40[illegible]	448.[illegible]70	.[illegible]
FLOOR BEAM	136	449.[illegible]	448.[illegible]04	.[illegible]
SPLICE	67	449.[illegible]	448.20	.[illegible]
FLOOR BEAM	137	449.[illegible]	449.976	1.01[illegible]
FLOOR BEAM	138	450.[illegible]	449.05[illegible]	1.[illegible]
FLOOR BEAM	139	450.[illegible]	449.1[illegible]	1.45[illegible]
FLOOR BEAM	140	450.81[illegible]	449.1[illegible]	1.[illegible]
CL. BRG.		450.97[illegible]	449.1[illegible]	1.[illegible]

Notes:

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate
See Sketch Sheet No. 183
For Girder Details see sheet No. 212

BILL OF MATERIAL		
* Structural Steel	Lbs.	205,630

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 4,300 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D26 THRU D27

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 240 OF 526

DESIGNED BY R. N. R.
DRAWN BY I. M.
CHECKED BY A. J. C.
APPROVED BY K. A.

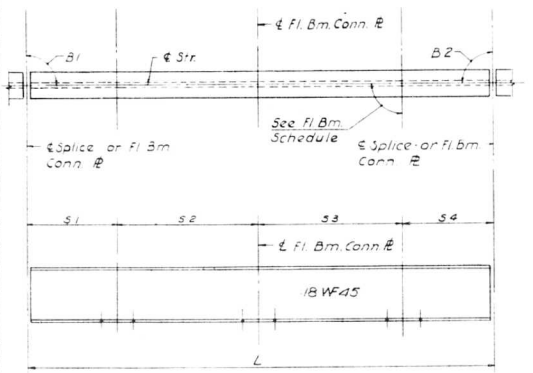
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVFBE-1	ST CLAIR	247	111
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

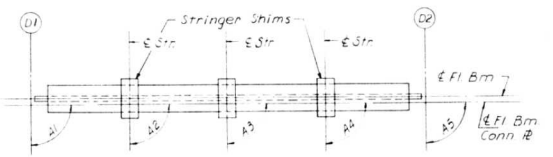
STR.	L	S1	S2	S3	S4	B1	B2
262	28 8	14 2	○	○	14 6	90,00,00	90,00,00
263	28 8	14 2	○		14 6	90,00,00	90,00,00
264	28 8	14 2	○		14 6	90,00	90,00,00
265	37	4	18 6		14 6	90,00,00	90,00,00
266	37	4	18 6		14 6	90,00,00	90,00,00
267	37	4	18 6	○	14 6	90,00,00	90,00,00
268	45	4	18 6	18 6	4	90,00,00	90,00,00
269	45	4	18 6	18 6	4	90,00,00	90,00,00
270	45	4	18 6	18 6	4	90,00,00	90,00,00
271	37	14 6	18 6		4	90,00,00	90,00,00
272	37	14 6	18 6		4	90,00,00	90,00,00
273	37	14 6	18 6		4	90,00,00	90,00,00
274	28 8	14 6	○		14 2	90,00,00	90,00,00
275	28 8	14 6	○		14 2	90,00,00	90,00,00
276	28 8	14 6	○		14 2	90,00,00	90,00,00

FLOOR BEAM DIMENSIONS

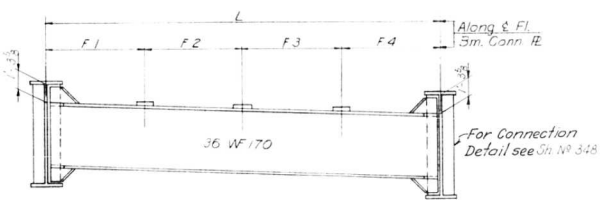
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
130	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
131	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
132	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
133	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
134	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
135	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
136	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
137	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
138	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
139	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00
140	32	8	8	8	8	90,00,00	90,00,00	90,00,00	90,00,00	90,00,00



TYPICAL STRINGER

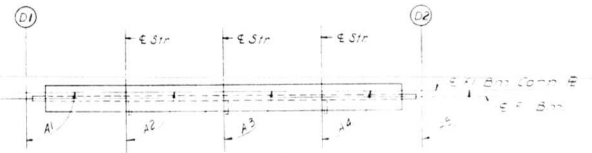


PLAN

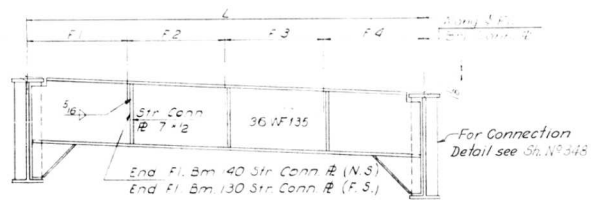


ELEVATION

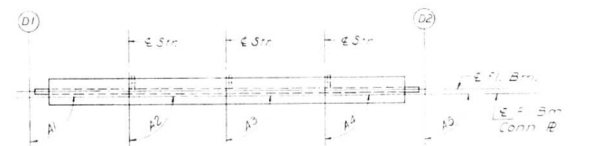
INTERIOR FLOOR BEAM 131 THRU 139



PLAN - END FL. BM 140



ELEVATION



PLAN - END FL. BM 130

END FLOOR BEAM 130 AND 140

Notes:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "6".
All dimensions are in the horizontal plane.
For Connection Plate Details see Sheet No. 348

DESIGNED BY A.T. C.A.I.C.
DRAWN BY D.C.H.
CHECKED BY A.A.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS D26 AND D27
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 241 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. I-70	82-3HVF&E-1	ST. CLAIR	247	112
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 131	T1	T2	T3	T4
STR.				
262	9/16	1/2	7/8	13/16
263	5/8	9/16	13/16	3/4
264	5/8	9/16	13/16	3/4

FLOOR BEAM 132	T1	T2	T3	T4
STR.				
265	9/16	9/16	13/16	13/16
266	9/16	9/16	13/16	13/16
267	5/8	5/8	3/4	3/4

FLOOR BEAM 133	T1	T2	T3	T4
STR.				
265	1/2	9/16	13/16	7/8
266	9/16	9/16	13/16	13/16
267	5/8	5/8	3/4	3/4

FLOOR BEAM 134	T1	T2	T3	T4
STR.				
268	1/2	9/16	13/16	7/8
269	9/16	5/8	3/4	13/16
270	9/16	5/8	3/4	13/16

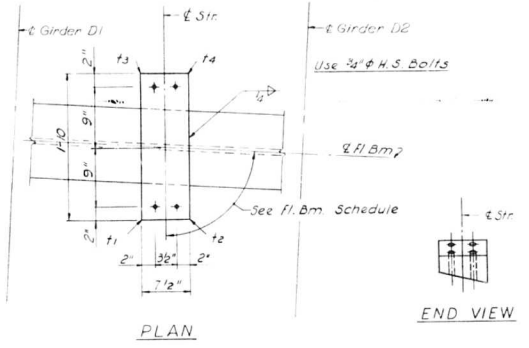
FLOOR BEAM 135	T1	T2	T3	T4
STR.				
268	1/2	5/8	3/4	7/8
269	1/2	5/8	3/4	7/8
270	9/16	11/16	11/16	13/16

FLOOR BEAM 136	T1	T2	T3	T4
STR.				
268	7/16	5/8	3/4	15/16
269	1/2	11/16	11/16	7/8
270	1/2	11/16	11/16	7/8

FLOOR BEAM 137	T1	T2	T3	T4
STR.				
271	7/16	11/16	11/16	15/16
272	7/16	11/16	11/16	15/16
273	1/2	3/4	5/8	7/8

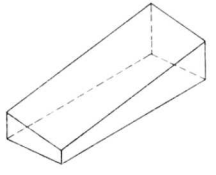
FLOOR BEAM 138	T1	T2	T3	T4
STR.				
271	3/8	11/16	11/16	1
272	7/16	3/4	5/8	15/16
273	7/16	3/4	5/8	15/16

FLOOR BEAM 139	T1	T2	T3	T4
STR.				
274	3/8	11/16	11/16	1
275	7/16	3/4	5/8	15/16
276	7/16	13/16	9/16	15/16

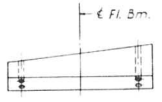


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t_1, t_2, t_3 & t_4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS D26 AND D27

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

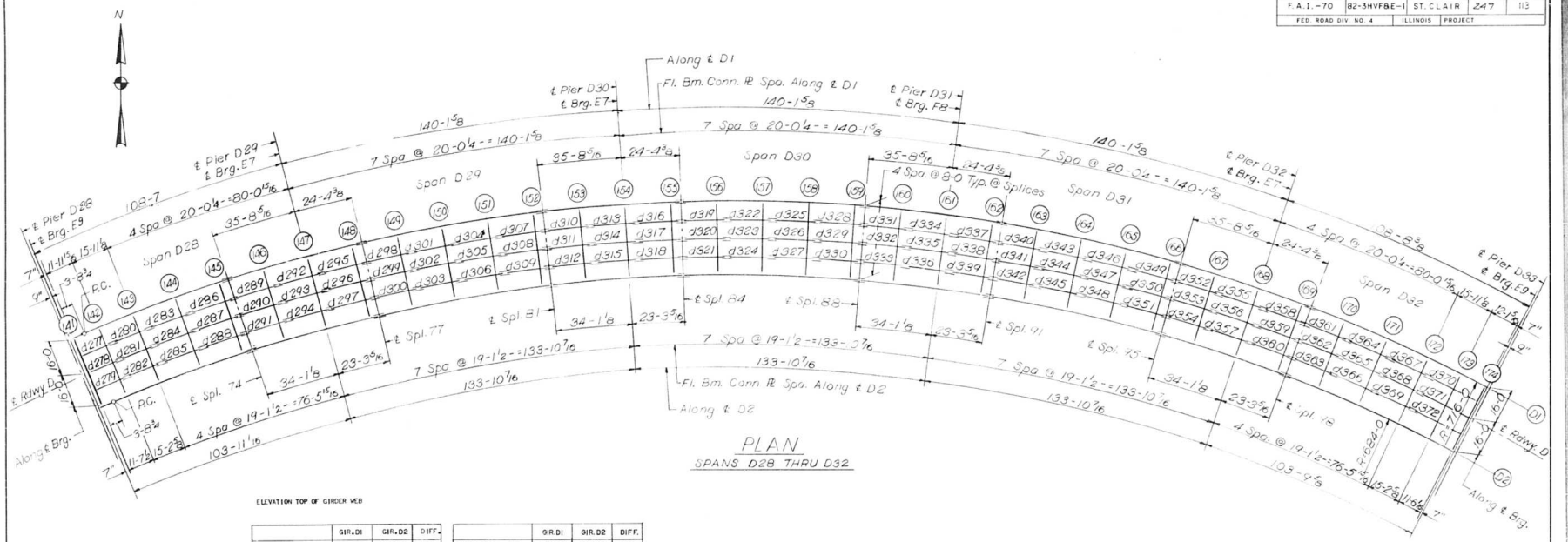
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 242 OF 526

DESIGNED BY A.F.C
DRAWN BY S.C.H
CHECKED BY A.S
APPROVED BY K.A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	113
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D28 THRU D32

ELEVATION TOP OF GIRDER WEB

	GIR. D1	GIR. D2	DIFF.
CL. BRG.	450.846	449.182	1.664
FLOOR BEAM 141	450.855	449.194	1.661
FLOOR BEAM 142	451.047	449.237	1.810
FLOOR BEAM 143	451.302	449.294	2.008
FLOOR BEAM 144	451.622	449.366	2.256
FLOOR BEAM 145	451.943	449.437	2.506
SPLICE 74	452.012	449.452	2.560
FLOOR BEAM 146	452.166	449.606	2.560
FLOOR BEAM 147	452.361	449.801	2.560
FLOOR BEAM 148	452.557	449.997	2.560
SPLICE 77	452.589	450.039	2.560
FLOOR BEAM 149	452.753	450.193	2.560
FLOOR BEAM 150	452.948	450.388	2.560
FLOOR BEAM 151	453.144	450.584	2.560
FLOOR BEAM 152	453.340	450.780	2.560
SPLICE 81	453.382	450.822	2.560
FLOOR BEAM 153	453.536	450.976	2.560
FLOOR BEAM 154	453.731	451.171	2.560
FLOOR BEAM 155	453.927	451.367	2.560
SPLICE 84	453.969	451.409	2.560
FLOOR BEAM 156	454.123	451.563	2.560
FLOOR BEAM 157	454.318	451.758	2.560

	GIR. D1	GIR. D2	DIFF.
FLOOR BEAM 158	454.514	451.954	2.560
FLOOR BEAM 159	454.710	452.150	2.560
SPLICE 88	454.752	452.192	2.560
FLOOR BEAM 160	454.906	452.346	2.560
FLOOR BEAM 161	455.101	452.541	2.560
FLOOR BEAM 162	455.297	452.737	2.560
SPLICE 91	455.339	452.779	2.560
FLOOR BEAM 163	455.493	452.933	2.560
FLOOR BEAM 164	455.688	453.128	2.560
FLOOR BEAM 165	455.884	453.324	2.560
FLOOR BEAM 166	456.080	453.520	2.560
SPLICE 95	456.122	453.562	2.560
FLOOR BEAM 167	456.275	453.715	2.560
FLOOR BEAM 168	456.470	453.910	2.560
FLOOR BEAM 169	456.665	454.105	2.560
SPLICE 98	456.707	454.147	2.560
FLOOR BEAM 170	456.788	454.228	2.560
FLOOR BEAM 171	456.891	454.331	2.560
FLOOR BEAM 172	456.993	454.433	2.560
FLOOR BEAM 173	457.075	454.515	2.560
FLOOR BEAM 174	457.137	454.577	2.560
CL. BRG.	457.140	454.580	2.560

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. See Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	1,051,470

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 13,780 Lbs

DESIGNED BY A. M. P.
DRAWN BY D.C.H.
CHECKED BY A. J. C.
APPROVED BY K. L.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D28 THRU D32

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

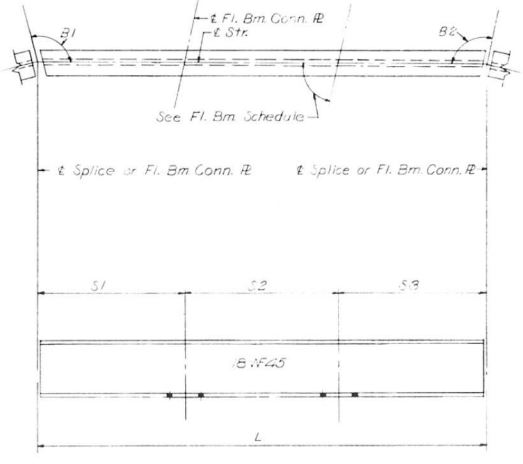
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 343 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVFBE-1	ST. CLAIR	247	4
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	B1	B2	STR	L	S1	S2	S3	B1	B2
277	15- 2 1/4	11-10 13/16	O	3- 3 7/16	90.21.00	90.34.39	325	19- 9 9/16	15- 5 15/16	O	4- 3 9/16	90.48.03	90.48.04
278	15 11/16	11 9 11/16	↑	3 3	90.20.56	90.34.43	326	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.04
279	14 11 3/16	11 8 9/16	↑	3 2 9/16	90.20.53	*	327	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.04
280	16 9 1/8	12 5 9/16	↑	4 3 9/16	90.40.41	90.40.41	328	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
281	16 6 7/8	12 3 7/8	↑	4 3	90.40.41	90.40.41	329	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
282	16 4 9/16	12 2 3/4	↑	4 2 7/16	90.40.41	90.40.41	330	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
283	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	331	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.04
284	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	332	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.04
285	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	333	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.04	90.48.04
286	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	334	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.04
287	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	335	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.04
288	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	336	19 1 3/16	15 1 1/4	↑	4 2 7/16	90.48.04	90.48.04
289	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	337	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
290	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	338	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
291	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	339	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
292	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	340	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
293	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	341	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
294	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	342	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
295	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	343	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
296	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	344	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
297	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	345	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
298	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	346	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
299	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	347	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
300	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	348	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
301	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	349	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
302	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	350	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
303	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	351	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
304	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	352	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
305	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	353	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
306	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	354	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
307	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	355	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.04
308	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	356	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.04
309	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	357	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.04	90.48.04
310	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.04	358	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.04
311	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.04	359	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
312	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.04	90.48.04	360	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
313	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.04	361	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
314	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.04	362	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
315	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.04	90.48.04	363	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
316	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.04	90.48.03	364	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03
317	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03	365	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.03
318	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03	366	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.03	90.48.03
319	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.03	367	19 9 9/16	15 5 15/16	↑	3 3 7/16	90.45.36	90.45.36
320	19 6 7/8	15 3 7/8	↑	4 3	90.48.04	90.48.03	368	18 6 7/8	15 3 7/8	↑	3 3	90.45.36	90.45.36
321	19 4 3/16	15 1 3/4	↑	4 2 7/16	90.48.04	90.48.03	369	18 4 5/16	15 1 3/4	↑	3 2 9/16	90.45.36	90.45.36
322	19 9 9/16	15 5 15/16	↑	4 3 9/16	90.48.03	90.48.04	370	24 5 1/16	12 5 9/16	↑	11 11 1/2	90.59.18	91.06.46
323	19 6 7/8	15 3 7/8	↑	4 3	90.48.03	90.48.04	371	24 1 9/16	12 3 7/8	↑	11 9 11/16	90.59.15	91.06.48
324	19 4 3/16	15 1 3/4	O	4 2 7/16	90.48.03	90.48.04	372	23 11 1/16	12 2 3/16	O	11 7 7/8	90.59.13	91.06.50



TYPICAL STRINGER

Note:
Length L of stringers is correct as given in the table except the increment lengths are given to the nearest "/8". All dimensions are in the horizontal plane.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

STRINGER SCHEDULE
SPANS D28 THRU D32
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

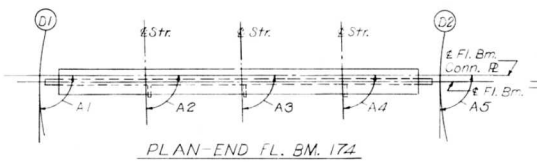
SHEET 241 OF 526

DESIGNED BY A.T. & A.J.C.
DRAWN BY
CHECKED BY A.A.
APPROVED BY R.A.

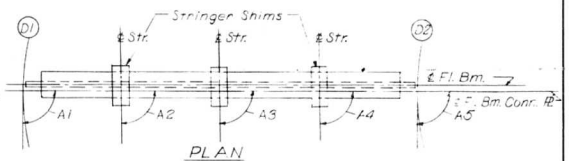
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I – 7 0	82-3HVF & E-4	ST CLAIR	247	115
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM DIMENSIONS

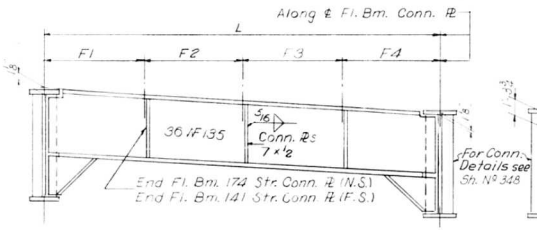
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
141	12'—0"	8'—0"	8'—0"	8'—0"	8'—0"	90°00'00"	90°21'00"	90°20'56"	90°20'53"	90°00'00"
142	12'	8'	8'	8'	7' 11 11/16"	90°00'00"	89°41'18"	89°41'15"	89°41'11"	90°00'00"
143	12'	8'	8'	8'	7' 11 9/16"	90°00'00"	89°40'11"	89°40'11"	89°40'11"	90°00'00"
144	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
145	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
146	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
147	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
148	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
149	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
150	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
151	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
152	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
153	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
154	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
155	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
156	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'50"	89°32'50"	89°32'50"	90°00'00"
157	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'48"	89°32'48"	89°32'48"	90°00'00"
158	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
159	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
160	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
161	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
162	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
163	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
164	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
165	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
166	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
167	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
168	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
169	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
170	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
171	12'	8'	8'	8'	7' 11 7/16"	90°00'00"	89°32'49"	89°32'49"	89°32'49"	90°00'00"
172	12'	8'	8'	8'	7' 11 9/16"	90°00'00"	89°30'21"	89°30'21"	89°30'21"	90°00'00"
173	12'	8' 1 1/4"	8'	8'	7' 10 3/4"	90°00'00"	89°58'47"	89°58'45"	89°58'42"	90°00'00"
174	12'	8'	8'	8'	8'	89°53'35"	88°54'14"	88°54'12"	88°54'10"	89°53'18"



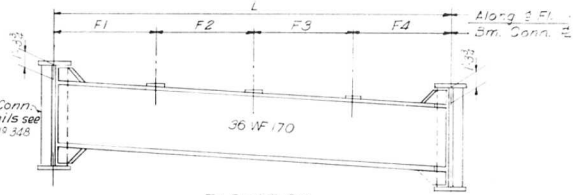
PLAN-END FL. BM. 174



PLAN

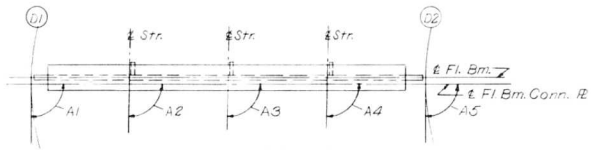


ELEVATION



ELEVATION

INTERIOR FLOOR BEAM 142 THRU 173



PLAN-END FL. BM. 141

END FLOOR BEAM 141 AND 174

Notes:

Length L of Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "16". All dimensions are in the horizontal plane. For Connection Plate Details see Sh. No 348.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FLOOR BEAM SCHEDULE

SPANS D 28 THRU D 32

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F A I RT 70 ST. CLAIR CO. SECTION 82-3HVF & E-4

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 345 of 536

DESIGNED BY A.T.G.A.I.C.
DRAWN BY J.C.H.
CHECKED BY A.A.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	116
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 142	T1	T2	T3	T4
STR.				
277	7/16	7/8	3/4	1 3/16
278	1/2	15/16	11/16	1 1/8
279	1/2	15/16	11/16	1 1/8

FLOOR BEAM 143	T1	T2	T3	T4
STR.				
280	7/16	7/8	3/4	1 3/16
281	7/16	15/16	11/16	1 3/16
282	1/2	1	5/8	1 1/8

FLOOR BEAM 144	T1	T2	T3	T4
STR.				
283	3/8	15/16	11/16	1 1/4
284	7/16	15/16	11/16	1 3/16
285	1/2	1	5/8	1 1/8

FLOOR BEAM 145	T1	T2	T3	T4
STR.				
286	3/8	15/16	11/16	1 1/4
287	7/16	1	5/8	1 3/16
288	7/16	1	5/8	1 3/16

FLOOR BEAM 146 THRU 148	T1	T2	T3	T4
STR. 289 THRU 297	3/8	1	5/8	1 1/4

FLOOR BEAM 149 THRU 152	T1	T2	T3	T4
STR. 298 THRU 309	3/8	1	5/8	1 1/4

FLOOR BEAM 153 THRU 155	T1	T2	T3	T4
STR. 310 THRU 318	3/8	1	5/8	1 1/4

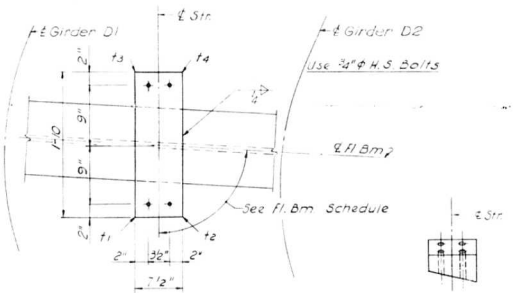
FLOOR BEAM 156 THRU 159	T1	T2	T3	T4
STR. 319 THRU 330	3/8	1	5/8	1 1/4

FLOOR BEAM 160 THRU 162	T1	T2	T3	T4
STR. 331 THRU 339	3/8	1	5/8	1 1/4

FLOOR BEAM 163 THRU 166	T1	T2	T3	T4
STR. 340 THRU 351	3/8	1	5/8	1 1/4

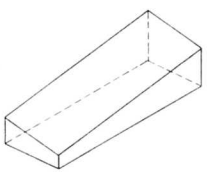
FLOOR BEAM 167 THRU 169	T1	T2	T3	T4
STR. 352 THRU 360	3/8	1	5/8	1 1/4

FLOOR BEAM 170 THRU 173	T1	T2	T3	T4
STR. 361 THRU 372	7/16	1 1/16	9/16	1 3/16

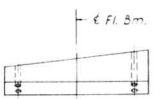


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.J.C.
DRAWN BY I.M.
CHECKED BY A.S.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

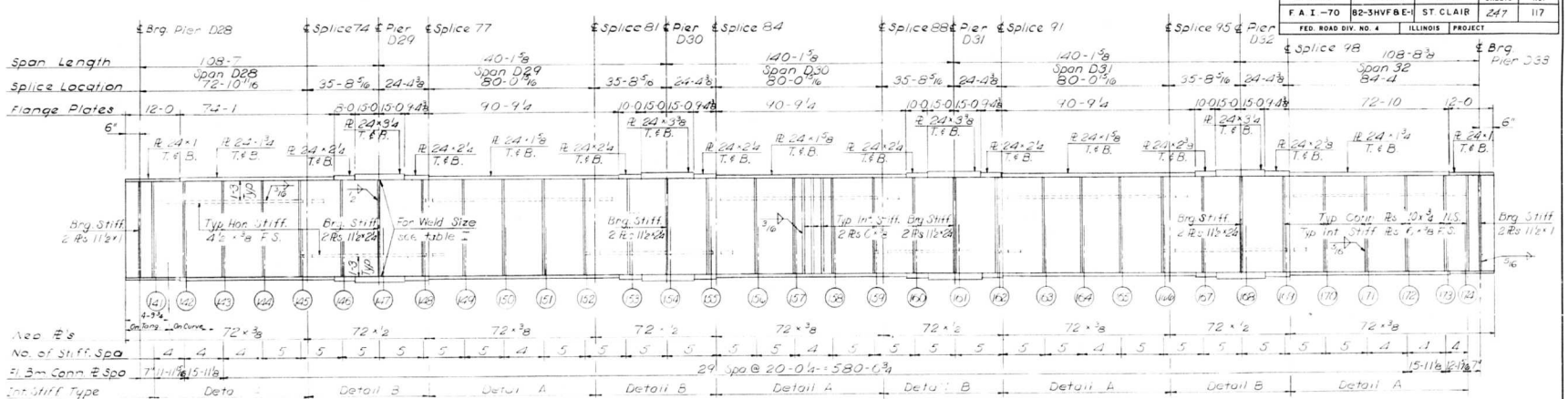
STRINGER SHIMS
SPANS D28 THRU D32
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

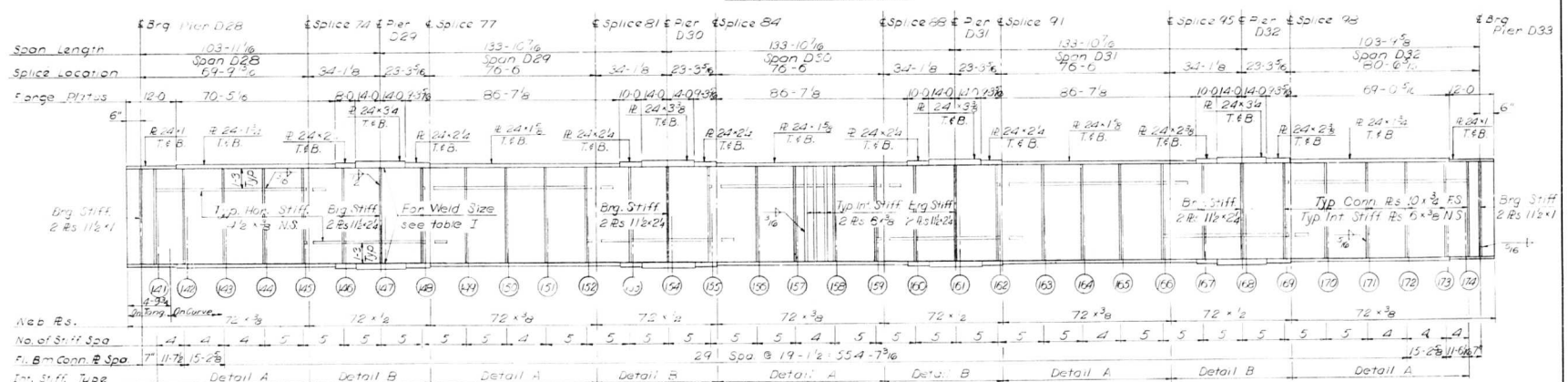
H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
246 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF & E-1	ST. CLAIR	247	117
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER D1
SPANS D28 thru D32



GIRDER D2
SPANS D28 thru D32

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 243.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I see Sh. No. 348, 349, and 350.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS D1 AND D2
SPANS D28 THRU D32

POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

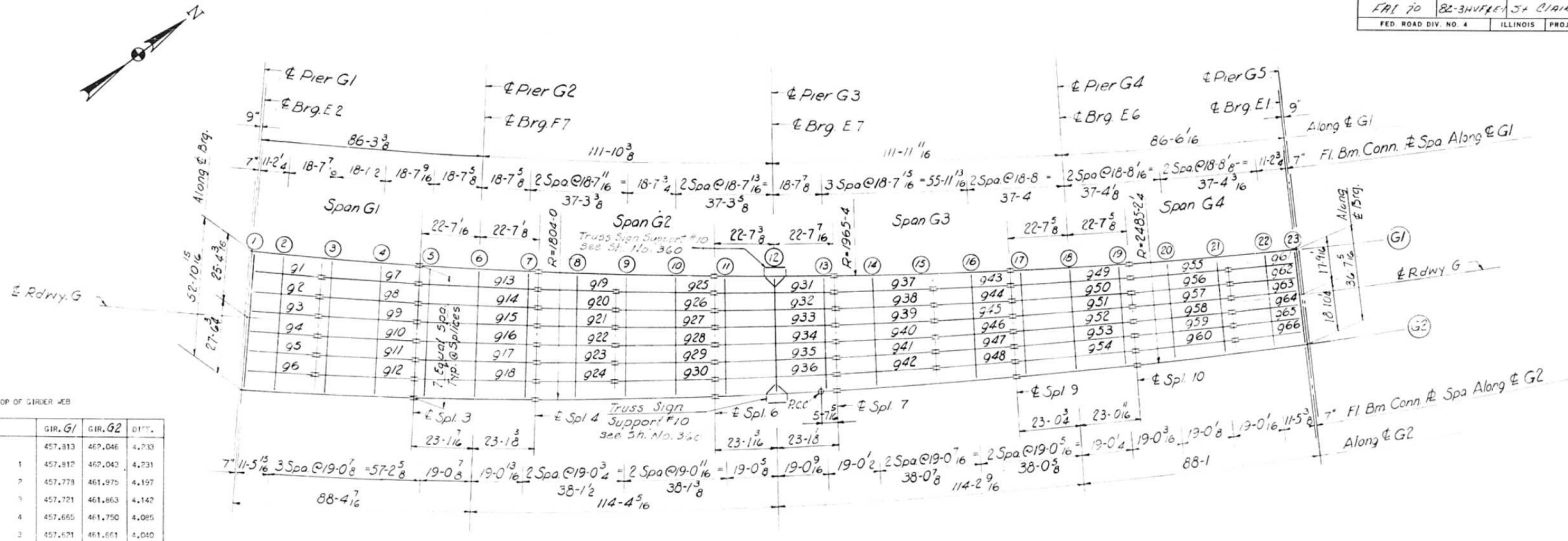
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 247 OF 526

DESIGNED BY J.T.
DRAWN BY D.C.H.
CHECKED BY E.L.
APPROVED BY R.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF&E	St. Clair	247	
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans G1 Thru G4

ELEVATION TOP OF GIRDER WEB

		GIR. G1	GIR. G2	DIFF.
CL. BRG.		457.813	462.046	4.233
FLOOR BEAM	1	457.817	462.043	4.231
FLOOR BEAM	2	457.778	461.975	4.197
FLOOR BEAM	3	457.721	461.863	4.142
FLOOR BEAM	4	457.665	461.750	4.085
SPLICE	3	457.631	461.661	4.030
FLOOR BEAM	5	457.608	461.636	4.028
FLOOR BEAM	6	457.549	461.515	3.966
FLOOR BEAM	7	457.489	461.395	3.906
SPLICE	4	457.477	461.369	3.892
FLOOR BEAM	8	457.478	461.768	3.840
FLOOR BEAM	9	457.365	461.139	3.774
FLOOR BEAM	10	457.303	461.010	3.707
SPLICE	5	457.254	460.909	3.655
FLOOR BEAM	11	457.240	460.880	3.640
FLOOR BEAM	12	457.174	460.743	3.569
FLOOR BEAM	13	457.109	460.606	3.497
SPLICE	7	457.095	460.577	3.482
FLOOR BEAM	14	457.041	460.470	3.429
FLOOR BEAM	15	456.972	460.335	3.363
FLOOR BEAM	16	456.920	460.199	3.296
SPLICE	9	456.849	460.097	3.248
FLOOR BEAM	17	456.814	460.065	3.251
FLOOR BEAM	18	456.762	459.934	3.172
FLOOR BEAM	19	456.690	459.804	3.114
SPLICE	10	456.675	459.776	3.101
FLOOR BEAM	20	456.616	459.677	3.061
FLOOR BEAM	21	456.541	459.552	3.011
FLOOR BEAM	22	456.466	459.427	2.961
FLOOR BEAM	23	456.421	459.351	2.930
CL. BRG.		456.418	459.347	2.929

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	636,220

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are included as Structural Steel Est. Wt. 13,150 Lbs.

DESIGNED BY R. M. E.
DRAWN BY J.K.
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS G1 THRU G4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

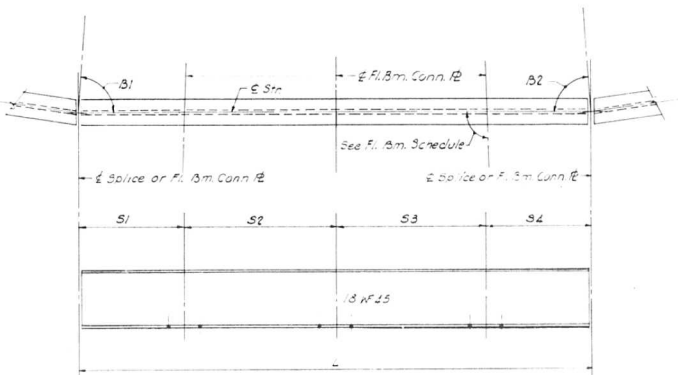
SHEET 246 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	119
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
1	25 11 3/8		11 2 3/4		14 8 5/8	90.48.10	88.27.43
2	26 1/2		11 3 1/4		14 9 3/16	90.30.02	88.45.51
3	26 1 5/8		11 3 13/16		14 9 13/16	90.12.02	89.03.51
4	26 2 3/4		11 4 5/16		14 10 7/16	89.54.10	89.21.43
5	26 3 15/16		11 4 7/8		14 11 1/16	89.36.26	89.39.27
6	26 5 1/16		11 5 7/16		14 11 5/8	89.18.49	89.57.04
7	37 4 1/2	3 11 5/8	18 8 1/4		14 8 11/16	90.36.11	88.23.24
8	37 6	3 11 3/4	18 9		14 9 1/4	90.17.08	88.42.26
9	37 7 9/16	3 11 15/16	18 9 3/4		14 9 13/16	89.58.13	89.01.21
10	37 9 1/16	4 1/8	18 10 1/2		14 10 7/16	89.39.26	89.20.08
11	37 10 5/8	4 1/4	18 11 5/16		14 11	89.20.47	89.38.48
12	38 3/16	4 7/16	19 1/16		14 11 5/8	89.02.15	89.57.20
13	45 3 15/16	3 11 5/8	18 8 5/16	18 8 3/8	3 11 11/16	90.23.19	88.23.26
14	45 5 11/16	3 11 13/16	18 9 1/16	18 9 1/16	3 11 13/16	90.03.04	88.43.40
15	45 7 1/2	3 11 15/16	18 9 3/4	18 9 13/16	3 11 15/16	89.42.58	89.03.46
16	45 9 5/16	4 1/8	18 10 9/16	18 10 9/16	4 1/8	89.23.00	89.23.45
17	45 11 1/8	4 5/16	18 11 5/16	18 11 1/4	4 1/4	89.03.09	89.43.35
18	46 -15/16	4 7/16	19 1/16	19	4 7/16	88.43.27	90.03.18
19	29 5 7/16	14 8 11/16			14 8 3/4	90.30.18	88.42.07
20	29 6 9/16	14 9 1/4			14 9 5/16	90.08.59	89.03.25
21	29 7 11/16	14 9 7/8			14 9 7/8	89.47.49	89.24.36
22	29 8 13/16	14 10 7/16			14 10 7/16	89.26.46	89.45.38
23	29 10	14 11			14 11	89.05.52	90.06.32
24	29 11 3/16	14 11 5/8			14 11 9/16	48.45.06	90.27.19
25	37 4 7/8	3 11 11/16	18 8 7/16		14 8 13/16	90.18.38	88.40.56
26	37 6 1/4	3 11 13/16	18 9 1/8		14 9 5/16	89.56.22	89.03.12
27	37 7 5/8	3 11 15/16	18 9 13/16		14 9 7/8	89.34.15	89.25.19
28	37 9 1/16	4 1/8	18 10 1/2		14 10 3/8	89.12.16	89.47.19
29	37 10 1/2	4 1/4	18 11 1/4		14 10 15/16	88.50.25	90.09.10
30	37 11 15/16	4 7/16	19		14 11 1/2	88.28.42	90.30.52
31	45 4 5/16	3 11 11/16	18 8 7/16	18 8 1/2	3 11 11/16	90.05.44	88.41.09
32	45 5 15/16	3 11 13/16	18 9 1/8	18 9 1/8	3 11 13/16	89.42.20	89.04.24
33	45 7 9/16	3 11 15/16	18 9 13/16	18 9 13/16	3 11 15/16	89.19.04	89.27.10

STR	L	S1	S2	S3	S4	B1	B2
34	45 9 3/16	4 1/8	18 10 1/2	18 10 1/2	4 1/8	88.55.57	89.50.48
35	45 10 7/8	4 1/4	18 11 3/16	18 11 1/8	4 1/4	88.32.57	90.13.47
36	46 9/16	4 7/16	18 11 15/16	18 11 13/16	4 3/8	88.10.06	90.36.38
37	37 5 1/16	14 8 13/16	18 8 9/16		3 11 11/16	90.07.29	88.52.05
38	37 6 5/16	14 9 5/16	18 9 3/16		3 11 13/16	89.44.46	89.14.49
39	37 7 5/8	14 9 7/8	18 9 13/16		3 11 15/16	89.22.10	89.37.25
40	37 8 15/16	14 10 3/8	18 10 7/16		4 1/16	88.59.42	89.59.53
41	37 10 1/4	14 10 15/16	18 11 1/8		4 1/4	88.37.21	90.22.13
42	37 11 9/16	14 11 7/16	18 11 3/4		4 3/8	88.15.09	90.44.26
43	29 5 3/4	14 8 7/8			14 8 7/8	90.11.13	89.01.12
44	29 6 11/16	14 9 3/8			14 9 3/8	89.50.08	89.22.17
45	29 7 11/16	14 9 7/8			14 9 13/16	89.29.09	89.43.15
46	29 8 11/16	14 10 3/8			14 10 5/16	89.08.18	90.04.07
47	29 9 11/16	14 10 7/8			14 10 13/16	88.47.33	90.24.51
48	29 10 11/16	14 11 3/8			14 11 5/16	88.26.56	90.45.29
49	45 4 5/8	3 11 11/16	18 8 9/16	18 8 5/8	3 11 11/16	89.55.21	88.51.23
50	45 6 1/16	3 11 13/16	18 9 3/16	18 9 3/16	3 11 13/16	89.36.06	89.10.38
51	45 7 1/2	3 11 15/16	18 9 13/16	18 9 13/16	3 11 15/16	89.16.57	89.29.47
52	45 8 15/16	4 1/8	18 10 7/16	18 10 3/8	4 1/16	88.57.55	89.48.50
53	45 10 7/16	4 1/4	18 11	18 11	4 3/16	88.38.58	90.07.47
54	45 11 15/16	4 3/8	18 11 11/16	18 11 9/16	4 5/16	88.20.07	90.26.37
55	37 5 5/16	14 8 15/16	18 8 5/8		3 11 3/4	89.58.24	89.01.10
56	37 6 7/16	14 9 3/8	18 9 3/16		3 11 13/16	89.41.12	89.18.23
57	37 7 9/16	14 9 13/16	18 9 13/16		3 11 15/16	89.24.04	89.35.30
58	37 8 3/4	14 10 5/16	18 10 3/8		4 1/16	89.07.02	89.52.32
59	37 9 7/8	14 10 3/4	18 10 15/16		4 3/16	88.50.05	90.09.29
60	37 11 1/16	14 11 1/4	18 11 1/2		4 5/16	88.33.13	90.26.21
61	26 1/16	14 8 15/16	11 3 1/8			90.05.03	89.10.50
62	26 7/8	14 9 3/8	11 3 1/2			89.49.23	89.26.30
63	26 1 11/16	14 9 13/16	11 3 13/16			89.30.48	89.42.05
64	26 2 1/2	14 10 1/4	11 4 3/16			89.18.18	89.57.35
65	26 3 5/16	14 10 3/4	11 4 9/16			89.02.53	90.12.59
66	26 4 3/16	14 11 3/16	11 4 15/16			88.47.33	90.28.20



TYPICAL STRINGER

Notes:
Length L of Stringer is correct as given in the Table, except the increment lengths are given to the nearest 1/16"
All dimensions are in the Horizontal Plane.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER SCHEDULE
SPANS G THRU G4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 249 of 526

DESIGNED BY
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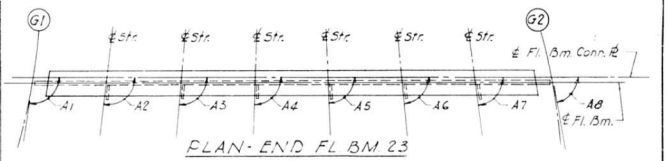
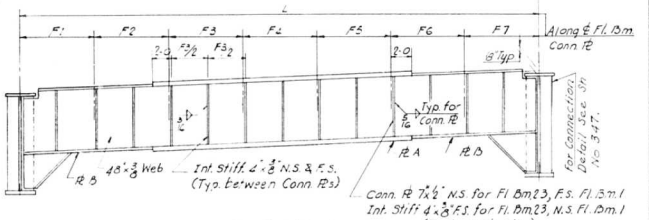
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVF & E-1	ST. CLAIR	247	
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM DIMENSIONS

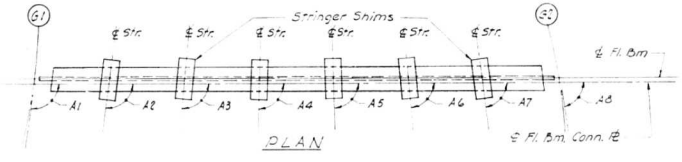
FL BM	L	F1	F2	F3	F4	F5	F6	F7	A1	A2	A3	A4	A5	A6	A7	A8	PLATE A T & S	PLATE B T & S
1	52 10 11/16	7 6 11/16	7 6 11/16	7 6 11/16	7 6 11/16	7 6 11/16	7 6 11/16	7 6 11/16	91.29.02	90.48.10	90.30.02	90.12.02	89.54.10	89.36.26	89.18.49	89.26.36	12 x 1/2	12 x 1/2
2	52 5 13/16	7 5 7/16	7 5 15/16	7 5 15/16	7 5 15/16	7 5 15/16	7 5 15/16	7 6 9/16	91.29.47	91.08.29	90.50.21	90.32.21	90.14.29	89.56.45	89.39.08	89.25.01	12 x 1/2	12 x 1/4
3	51 9 9/16	7 4 3/8	7 4 13/16	7 4 13/16	7 4 13/16	7 4 13/16	7 4 13/16	7 5 1/4	91.27.26	90.42.36	90.23.33	90.04.38	89.45.51	89.27.12	89.08.40	89.18.53	12 x 1/2	12 x 1/4
4	51 1	7 2 9/16	7 3 9/16	7 3 9/16	7 3 9/16	7 3 9/16	7 3 9/16	7 4 11/16	91.25.04	91.12.49	90.53.46	90.34.51	90.16.04	89.57.25	89.38.53	89.12.45	12 x 1/2	12 x 1/4
5	50 4 3/16	7 1 13/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 5/16	7 2 7/8	91.22.41	90.29.44	90.09.29	89.49.23	89.29.25	89.09.34	88.49.52	89.06.37	12 x 1/2	12 x 1/4
6	49 7 1/8	6 11 7/16	7 1	7 1	7 1	7 1	7 1	7 2 3/4	91.20.19	90.59.56	90.39.42	90.19.36	89.59.38	89.39.47	89.20.05	89.00.30	12 x 5/8	12 x 1/8
7	48 9 13/16	6 11 3/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	6 11 11/16	7 1/4	91.17.56	91.30.09	91.09.55	90.49.49	90.29.50	90.10.00	89.50.17	88.54.22	12 x 5/8	12 x 1/8
8	48 1/4	6 9 5/8	6 10 5/16	6 10 5/16	6 10 5/16	6 10 5/16	6 10 5/16	6 11 1/16	91.15.32	90.54.05	90.32.47	90.11.36	89.50.34	89.29.40	89.08.54	88.48.15	12 x 1/2	12 x 1
9	47 2 7/16	6 8 1/2	6 8 15/16	6 8 15/16	6 8 15/16	6 8 15/16	6 8 15/16	6 9 3/8	91.13.08	90.25.03	90.02.47	89.40.40	89.18.41	88.56.50	88.35.07	88.42.09	12 x 1/2	12 x 1
10	46 4 3/8	6 6 7/16	6 7 7/16	6 7 7/16	6 7 7/16	6 7 7/16	6 7 7/16	6 8 5/8	91.10.44	90.55.16	90.33.00	90.10.53	89.48.54	89.27.03	89.05.20	88.36.02	12 x 1/2	12 x 1
11	45 6 1/16	6 5 1/2	6 6	6 6	6 6	6 6	6 6	6 6 9/16	91.08.20	90.12.09	89.48.45	89.25.29	89.02.22	88.39.22	88.16.32	88.29.56	12 x 3/8	12 x 7/8
12	44 7 1/2	6 2 15/16	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 4 1/2	6 6 1/4	91.05.55	90.42.22	90.18.58	89.55.42	89.32.34	89.09.35	88.46.44	88.23.51	12 x 3/8	12 x 7/8
13	43 8 11/16	6 2 7/16	6 2 15/16	6 2 15/16	6 2 15/16	6 2 15/16	6 2 15/16	6 3 1/2	91.03.30	91.12.35	90.49.11	90.25.55	90.02.47	89.39.48	89.16.57	88.18.35	12 x 3/8	12 x 3/4
14	42 10	6 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 1 7/16	6 2 5/16	91.01.04	90.31.17	90.08.33	89.45.58	89.23.29	89.01.09	88.38.56	88.22.27	12 x 1/4	12 x 3/4
15	41 11 3/4	5 11 9/16	6	6	6	6	6	6 5/16	90.58.39	91.01.30	90.38.46	90.16.10	89.53.42	89.31.22	89.09.09	88.26.20	12 x 1/4	12 x 5/8
16	41 1 15/16	5 9 15/16	5 10 9/16	5 10 9/16	5 10 9/16	5 10 9/16	5 10 9/16	5 11 1/8	90.56.13	90.35.01	90.13.55	89.52.57	89.32.06	89.11.21	88.50.44	88.30.13	12 x 1/4	12 x 5/8
17	40 4 1/2	5 8 3/4	5 9 1/4	5 9 1/4	5 9 1/4	5 9 1/4	5 9 1/4	5 9 5/8	90.53.47	90.01.46	89.42.31	89.23.22	89.04.20	88.45.23	88.26.32	88.34.06	12 x 1/4	12 x 5/8
18	39 7 1/2	5 6 7/16	5 8	5 8	5 8	5 8	5 8	5 9 1/4	90.51.20	90.31.59	90.12.44	89.53.35	89.34.32	89.15.36	88.56.45	88.38.00	12 x 1/4	12 x 5/8
19	38 10 15/16	5 6 1/4	5 6 3/4	5 6 3/4	5 6 3/4	5 6 3/4	5 6 3/4	5 7 1/8	90.48.53	91.02.12	90.42.57	90.23.48	90.04.45	89.45.48	89.26.58	88.41.55	12 x 1/4	12 x 5/8
20	38 2 13/16	5 4 9/16	5 5 9/16	5 5 9/16	5 5 9/16	5 5 9/16	5 5 9/16	5 6 3/8	90.46.27	90.22.12	90.05.00	89.47.52	89.30.50	89.13.53	88.57.01	88.45.49	12 x 1/4	12 x 5/8
21	37 7 1/16	5 4 1/16	5 4 7/16	5 4 7/16	5 4 7/16	5 4 7/16	5 4 7/16	5 4 3/4	90.43.59	90.52.25	90.35.12	90.18.05	90.01.03	89.44.06	89.27.14	88.49.44	12 x 1/4	12 x 3/4
22	36 11 3/4	5 2 7/8	5 3 3/8	5 3 3/8	5 3 3/8	5 3 3/8	5 3 3/8	5 3 13/16	90.41.32	90.28.50	90.13.11	89.57.36	89.42.06	89.26.41	89.11.21	88.53.40	12 x 1/4	12 x 3/4
23	36 7 1/2	5 2 13/16	5 2 13/16	5 2 13/16	5 2 13/16	5 2 13/16	5 2 13/16	5 2 13/16	90.42.13	90.49.10	90.33.30	90.17.55	90.02.25	89.47.01	89.31.40	88.58.09	12 x 1	12 x 7/8



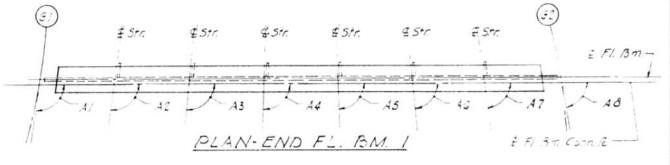
PLAN - END FL BM 23



ELEVATION

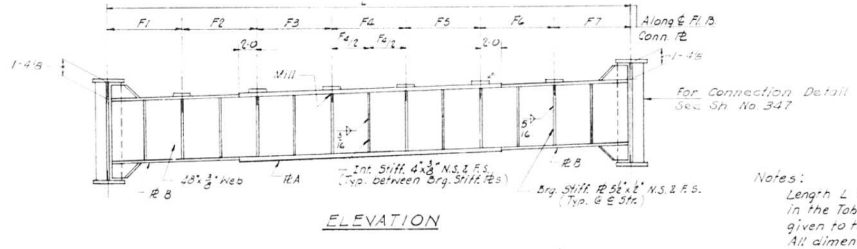


PLAN



PLAN - END FL. BM. 1

END FLOOR BEAM 1 AND 23



ELEVATION

INTERIOR FLOOR BEAM 2 THRU 22

Notes:
Length L of Floor Beam is correct as given in the Table, except the increment lengths are given to the nearest ½".
All dimensions are in the horizontal plane.
For Intermediate Stiffener, Bearing Stiffener and Connection Plate Details see Sheet No. 346

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FLOOR BEAM SCHEDULE

SPANS G1 THRU G4

POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 250 OF 506

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF&E-1	ST. CLAIR	247	121
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 2 THRU 4	T1	T2	T3	T4
STR. 1 THRU 12	1 1/16	1/2	1	7/16

FLOOR BEAM 5 THRU 7	T1	T2	T3	T4
STR. 13 THRU 18	1 1/16	1/2	1	7/16

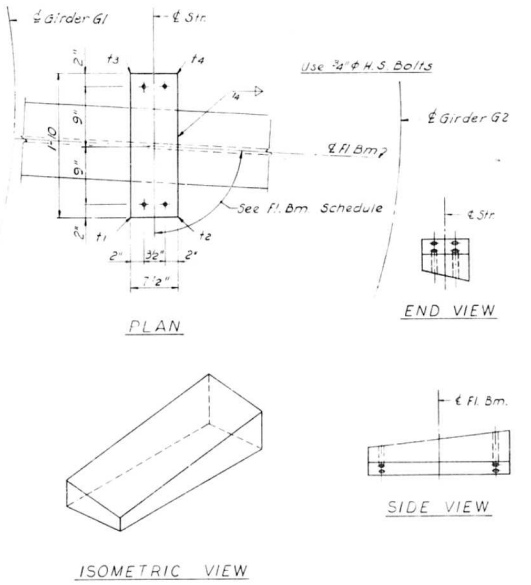
FLOOR BEAM 8 THRU 10	T1	T2	T3	T4
STR. 19 THRU 30	1 1/16	1/2	1	7/16

FLOOR BEAM 11 THRU 13	T1	T2	T3	T4
STR. 31 THRU 36	1 1/8	1/2	1	3/8

FLOOR BEAM 14 THRU 16	T1	T2	T3	T4
STR. 37 THRU 48	1 1/8	1/2	1	3/8

FLOOR BEAM 17 THRU 19	T1	T2	T3	T4
STR. 49 THRU 54	1 1/8	1/2	1	3/8

FLOOR BEAM 20 THRU 22	T1	T2	T3	T4
STR. 55 THRU 66	1 1/8	1/2	1	3/8



SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS G1 THRU G4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 251 of 526

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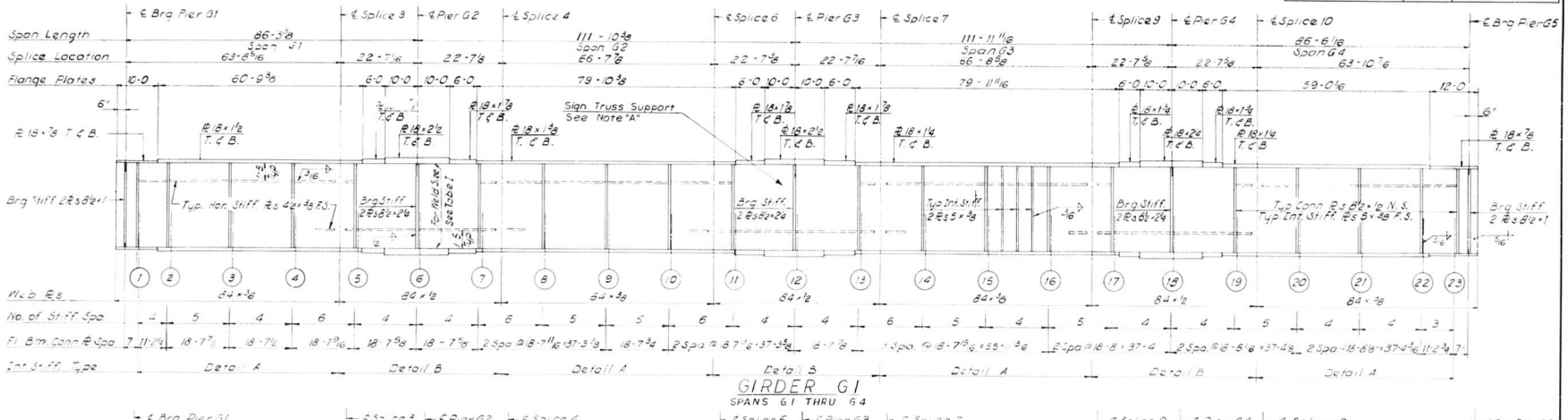
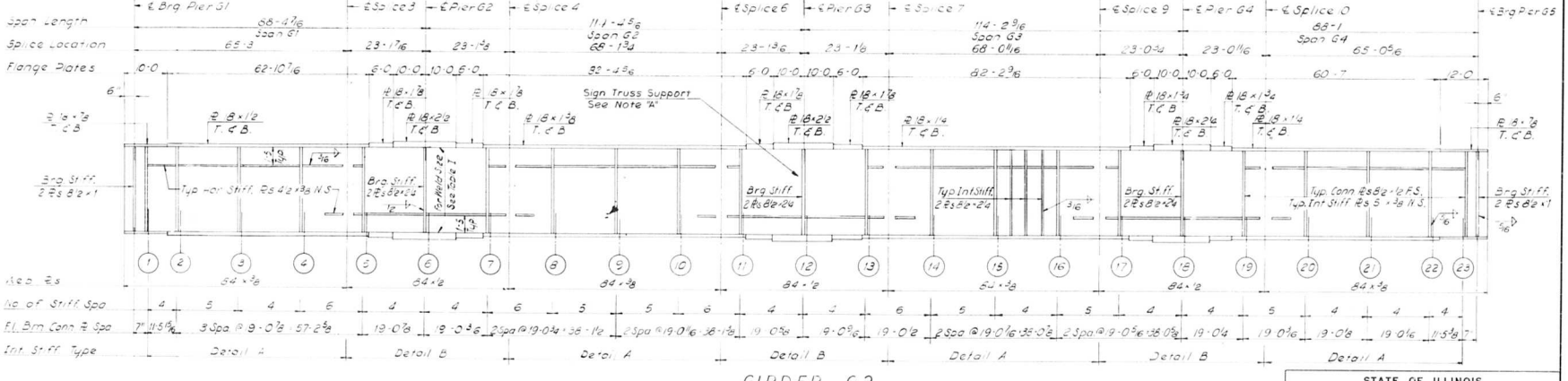
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	122
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER G1

SPANS G1 THRU G4



GIRDER G2

SPANS G1 THRU G4

NOTES:

All longitudinal dimensions shown are given along ℄ of Web. See Sheet No. 248.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection plate Details and Table I see Sheet Nos. 348, 349 & 350.
For Truss Sign Support see Sheet No. 360.

NOTE "A"

Intermediate Stiffeners should be moved if necessary to clear Sign Truss Support Connection Plate.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS G1 AND G2
SPANS G1 THRU G4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 252 OF 526

DESIGNED BY
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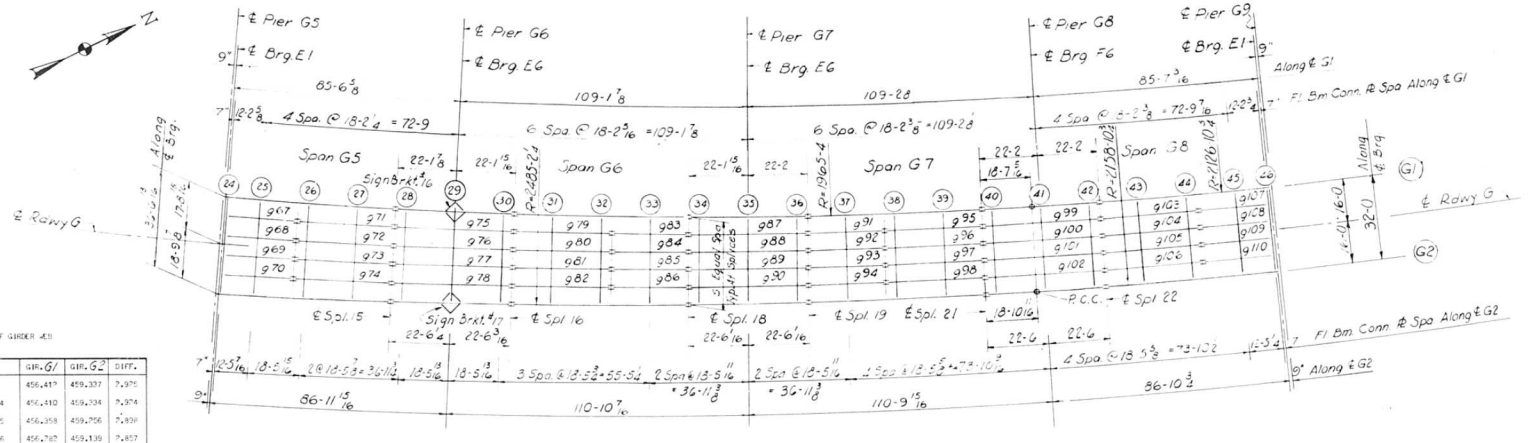
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF	ST CLAIR	247	23
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans G5 Thru G8

ELEVATION TOP OF GIRDER AT

	GIR. G1	GIR. G2	DIFF.
CL. BRG.	456.417	459.337	2.920
FLOOR BEAM 24	456.410	459.334	2.924
FLOOR BEAM 25	456.358	459.206	2.848
FLOOR BEAM 26	456.282	459.139	2.857
FLOOR BEAM 27	456.206	459.093	2.888
SPLICE 15	456.145	458.933	2.788
FLOOR BEAM 28	456.178	458.908	2.730
FLOOR BEAM 29	456.048	458.797	2.749
FLOOR BEAM 30	455.969	459.686	2.717
SPLICE 16	455.951	458.662	2.711
FLOOR BEAM 31	455.887	458.578	2.691
FLOOR BEAM 32	455.804	458.470	2.666
FLOOR BEAM 33	455.721	458.366	2.645
SPLICE 18	455.657	458.283	2.626
FLOOR BEAM 34	455.628	458.261	2.633
FLOOR BEAM 35	455.557	458.119	2.607
FLOOR BEAM 36	455.467	458.058	2.591
SPLICE 19	455.448	458.035	2.588
FLOOR BEAM 37	455.376	457.951	2.583
FLOOR BEAM 38	455.290	457.864	2.574
FLOOR BEAM 39	455.201	457.768	2.567
SPLICE 21	455.131	457.693	2.562
FLOOR BEAM 40	455.111	457.673	2.562
FLOOR BEAM 41	455.070	457.561	2.561
FLOOR BEAM 42	454.979	457.489	2.560
SPLICE 22	454.509	457.469	2.560
FLOOR BEAM 43	454.837	457.397	2.560
FLOOR BEAM 44	454.745	457.305	2.560
FLOOR BEAM 45	454.654	457.214	2.560
FLOOR BEAM 46	454.562	457.152	2.560
CL. BRG.	454.553	457.149	2.560

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, See Sketch Sheet No. 193
For Sign Bracket Data, see Sheet No. 230

BILL OF MATERIAL		
*Structural Steel	Lbs.	508,590

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 10,970 Lbs.

DESIGNED BY F. A.
DRAWN BY J.K.
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS G5 THRU G8
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF B.E.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
253 OF 526

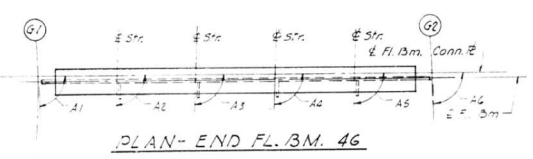
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVF BE-1	ST. CLAIR	247	124
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

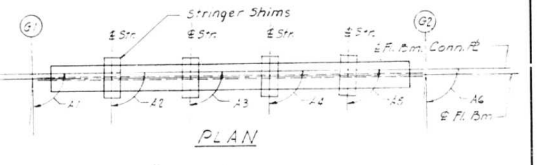
STR	L	S1	S2	S3	S4	B1	B2
67	26' 6 3/8		12' 3 3/16		14' 3 3/16	89,54.26	89,29.39
68	26' 7 1/2		12' 3 3/4		14' 3 3/4	89,54.34	89,29.31
69	26' 8 5/8		12' 4 5/16		14' 4 5/16	89,14.51	90,09.14
70	26' 9 13/16		12' 4 7/8		14' 4 15/16	88,55.17	90,19.48
71	36' 5 7/8	3' 11 3/4	18' 4 15/16		14' 3 3/16	89,46.37	89,14.34
72	36' 7 3/8	3' 11 15/16	18' 5 11/16		14' 3 3/4	89,28.56	89,32.15
73	36' 8 13/16	4' 1/16	18' 4 7/16		14' 4 5/16	89,11.21	89,49.43
74	36' 10' 1/4	4' 1/4	18' 5 1/8		14' 4 7/8	88,53.64	90,07.16
75	44' 5 1/2	3' 11 3/4	18' 4 15/16	18' 3	3' 11 3/4	89,37.10	89,10.40
76	44' 7 3/16	3' 11 15/16	18' 5 11/16	18' 3 11/16	3' 11 15/16	89,20.47	89,28.34
77	44' 8 15/16	4' 1/16	18' 4 3/8	18' 4 3/8	4' 1/16	89,02.59	89,47.22
78	44' 10 11/16	4' 1/4	18' 5 1/8	18' 5 1/16	4' 1/4	88,50.17	90,06.94
79	56' 5 15/16	3' 11 3/16	18' 3		3' 11 13/16	89,41.34	89,17.17
80	56' 7 7/8	3' 11 3/4	18' 3 11/16		3' 11 15/16	89,23.68	89,31.85
81	56' 8 1/4	3' 11 15/16	18' 4 3/8		4' 1/16	89,12.68	89,49.44
82	56' 10' 1/8	4' 1/16	18' 5 1/16		4' 1/16	89,00.29	89,06.83
83	68' 6 7/16	3' 11 3/16			3' 11 13/16	89,49.57	89,26.98
84	68' 7 1/16	3' 11 3/4			3' 11 15/16	89,32.75	89,37.85
85	68' 8 9/16	4' 1/16			4' 1/16	89,26.18	89,47.43
86	68' 9 5/8	4' 1/16			4' 1/16	89,16.34	89,57.67
87	44' 5 9/16	3' 11 13/16	18' 3	18' 3	3' 11 13/16	89,37.49	89,17.31
88	44' 7 3/16	3' 11 15/16	18' 3 11/16	18' 3 11/16	3' 11 15/16	89,20.30	89,28.51
89	44' 8 13/16	4' 1/16	18' 4 5/16	18' 4 5/16	4' 1/16	89,10.16	89,46.15
90	44' 10' 7/16	4' 1/4	18' 5	18' 5	4' 3/16	88,58.78	89,04.23
91	68' 6 7/16	14' 3 1/4			14' 3 1/4	89,41.22	89,30.39
92	68' 7 1/16	14' 3 3/4			14' 3 3/4	89,30.46	89,39.69
93	68' 8 1/16	14' 4 1/4			14' 4 1/4	89,21.47	89,48.36
94	68' 9 9/16	14' 4 13/16			14' 4 3/4	89,07.02	89,58.12
95	56' 6'	3' 11 13/16	18' 3		14' 3 1/4	89,30.64	89,26.16
96	56' 7 1/16	3' 11 15/16	18' 3 11/16		14' 3 3/4	89,20.21	89,29.49
97	56' 8 1/8	4' 1/16	18' 4 5/16		14' 4 1/4	89,07.49	89,39.46
98	56' 10'	4' 1/16	18' 5		14' 4 3/4	88,56.17	89,04.93
99	68' 6 3/16	3' 11 13/16	18' 3	18' 3	3' 11 13/16	89,44.25	89,23.98
100	68' 7 3/16	3' 11 15/16	18' 3 11/16	18' 3 11/16	3' 11 15/16	89,24.79	89,34.76
101	68' 8 13/16	4' 1/16	18' 4 5/16	18' 4 5/16	4' 1/16	89,20.50	89,46.48
102	68' 10' 1/8	4' 1/16	18' 5		4' 1/16	89,03.07	89,10.66
103	56' 6'	3' 11 13/16	18' 3		3' 11 13/16	89,37.15	89,17.15
104	56' 7 1/16	3' 11 15/16	18' 3 11/16		3' 11 15/16	89,30.30	89,39.20
105	56' 8 5/8	4' 1/16	18' 4 5/16		4' 1/16	89,20.26	89,47.00
106	56' 10' 1/16	4' 1/16	18' 5		4' 1/16	89,10.05	89,17.25
107	68' 6 1/4	14' 3 1/4	14' 3 1/4			89,28.37	89,30.68
108	68' 7 1/16	14' 3 3/4	14' 3 3/4			89,18.27	89,29.68
109	68' 8 1/16	14' 4 1/4	14' 4 1/4			89,08.37	89,38.68
110	68' 9 1/2	14' 4 3/4	14' 4 3/4			88,56.36	89,06.69

FLOOR BEAM DIMENSIONS

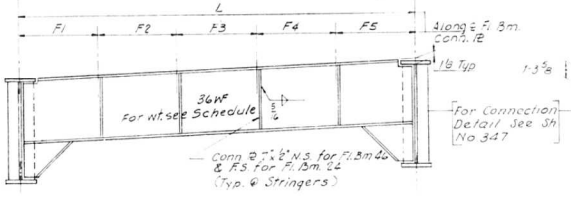
FL BM	L	F1	F2	F3	F4	F5	A1	A2	A3	A4	A5	A6	SECTION
24	36' 6 9/16	7' 3 11/16	7' 3 11/16	7' 3 11/16	7' 3 11/16	7' 3 11/16	90,37.33	89,54.26	89,34.34	89,14.51	88,55.17	88,54.47	36WF170
25	36' 7 3/16	7' 2 5/16	7' 2 7/8	7' 2 7/8	7' 2 7/8	7' 3 3/16	90,38.96	90,16.21	89,56.30	89,36.47	89,17.16	89,16.49	36WF194
26	35' 8 1/16	7' 1 1/4	7' 1 5/8	7' 1 5/8	7' 1 5/8	7' 1 15/16	90,35.42	89,53.02	89,35.21	89,17.46	89,00.19	89,00.09	36WF194
27	35' 4 5/16	6' 11 9/16	7' 1/4	7' 1/4	7' 1/4	7' 1 5/16	90,33.18	90,22.26	90,04.45	89,47.11	89,29.68	89,29.63	36WF182
28	34' 3	6' 10 15/16	6' 11 7/16	6' 11 7/16	6' 11 7/16	6' 11 13/16	90,30.64	89,44.05	89,29.12	89,14.24	88,59.42	89,00.39	36WF182
29	34' 4	6' 11 1/16	6' 11 7/16	6' 11 7/16	6' 11 7/16	6' 11 11/16	90,28.39	90,13.30	89,58.36	89,43.48	89,28.90	89,30.11	36WF170
30	33' 11 1/2	6' 9	6' 9 1/2	6' 9 1/2	6' 9 1/2	6' 9 15/16	90,26.95	90,12.55	89,58.91	89,45.13	89,31.13	89,32.21	36WF170
31	33' 7 5/16	6' 7 3/4	6' 8 11/16	6' 8 11/16	6' 8 11/16	6' 9 1/4	90,25.41	90,14.33	90,00.27	89,46.26	89,32.29	89,33.11	36WF170
32	33' 3 5/8	6' 7 3/16	6' 7 15/16	6' 7 15/16	6' 7 15/16	6' 8 1/4	90,23.18	90,14.58	90,01.56	89,48.51	89,35.47	89,36.00	36WF170
33	33' 1/2	6' 6 11/16	6' 7 1/4	6' 7 1/4	6' 7 1/4	6' 7 3/4	90,18.61	90,08.68	89,58.75	89,48.82	89,38.89	89,39.41	36WF170
34	32' 5 5/16	6' 6 3/16	6' 6 11/16	6' 6 11/16	6' 6 11/16	6' 7 1/16	90,16.27	89,57.14	89,48.05	89,38.97	89,29.88	89,30.43	36WF160
35	32' 4 1/4	6' 6 11/16	6' 6 3/16	6' 6 3/16	6' 6 3/16	6' 6 11/16	90,14.76	90,06.29	89,58.19	89,50.10	89,42.01	89,42.56	36WF160
36	32' 2 7/16	6' 6 1/2	6' 6 3/16	6' 6 3/16	6' 6 3/16	6' 6 5/8	90,11.37	90,02.04	89,52.84	89,43.64	89,34.47	89,35.02	36WF160
37	32' 1 15/16	6' 6 3/16	6' 6 3/16	6' 6 3/16	6' 6 3/16	6' 6 5/8	90,09.12	90,01.22	89,53.33	89,45.44	89,37.55	89,38.11	36WF160
38	32' 1 3/8	6' 6 3/4	6' 6 15/16	6' 6 15/16	6' 6 15/16	6' 6 3/4	90,06.87	89,59.40	89,51.93	89,44.46	89,36.99	89,37.59	36WF160
39	32' 5/8	6' 6'	6' 6 15/16	6' 6 15/16	6' 6 15/16	6' 6 3/4	90,04.66	89,58.44	89,52.22	89,46.00	89,39.78	89,40.39	36WF160
40	32' 1/8	6' 6 3/8	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 1/4	90,01.57	89,57.50	89,53.44	89,49.38	89,45.32	89,45.92	36WF160
41	32'	6' 6 3/8	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 3/16	89,59.29	89,56.15	89,53.00	89,49.86	89,46.72	89,47.32	36WF160
42	32'	6' 6 5/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 1/4	89,56.99	89,54.83	89,52.67	89,50.51	89,48.35	89,48.95	36WF160
43	32'	6' 6 15/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 11/16	89,54.70	89,53.50	89,52.30	89,51.10	89,49.90	89,50.50	36WF160
44	32'	6' 6 7/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 7/16	89,52.40	89,52.17	89,51.93	89,51.70	89,51.46	89,52.06	36WF150
45	32'	6' 6 5/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 5/16	89,50.10	89,50.84	89,51.56	89,52.29	89,53.02	89,53.62	36WF135
46	32'	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	6' 6 13/16	89,47.79	89,49.52	89,51.26	89,53.00	89,54.73	89,55.33	36WF135



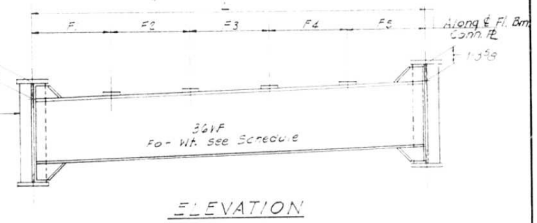
PLAN - END FL. BM. 46



PLAN

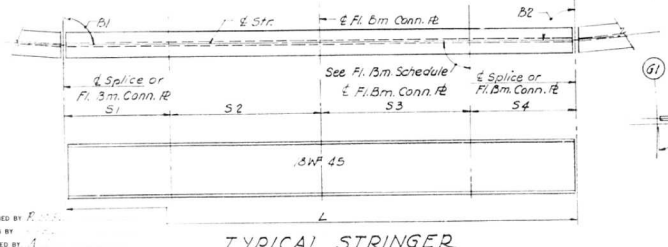


ELEVATION

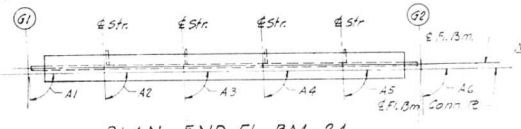


ELEVATION

INTERIOR FLOOR BEAM 25 THRU 45



TYPICAL STRINGER



PLAN - END FL. BM. 24

END FLOOR BEAM 24 AND 46

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the Table, except the increment lengths are given to the nearest ½".

All dimensions are in the horizontal plane.

For Connection Plate Details see Sheet No. 348.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS G5 THRU G8
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT 70 ST CLAIR CO. SECTION 82-3HVF BE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 254 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	125
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 25 THRU 27	T1	T2	T3	T4
STR. 67 THRU 74	1 1/8	1/2	1	3/8

FLOOR BEAM 28 THRU 30	T1	T2	T3	T4
STR. 75 THRU 78	1 1/8	1/2	1	3/8

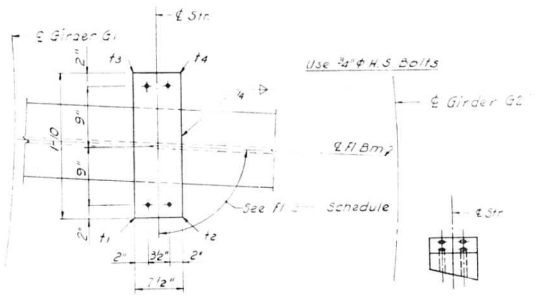
FLOOR BEAM 31 THRU 33	T1	T2	T3	T4
STR. 79 THRU 86	1 1/8	1/2	1	3/8

FLOOR BEAM 34 THRU 36	T1	T2	T3	T4
STR. 87 THRU 90	1 1/8	1/2	1	3/8

FLOOR BEAM 37 THRU 39	T1	T2	T3	T4
STR. 91 THRU 98	1 1/8	1/2	1	3/8

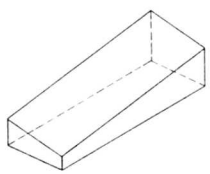
FLOOR BEAM 40 THRU 42	T1	T2	T3	T4
STR. 99 THRU 102	1 1/8	1/2	1	3/8

FLOOR BEAM 43 THRU 45	T1	T2	T3	T4
STR. 103 THRU 110	1 1/8	1/2	1	3/8

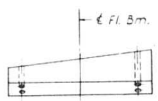


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS G5 THRU G8

POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

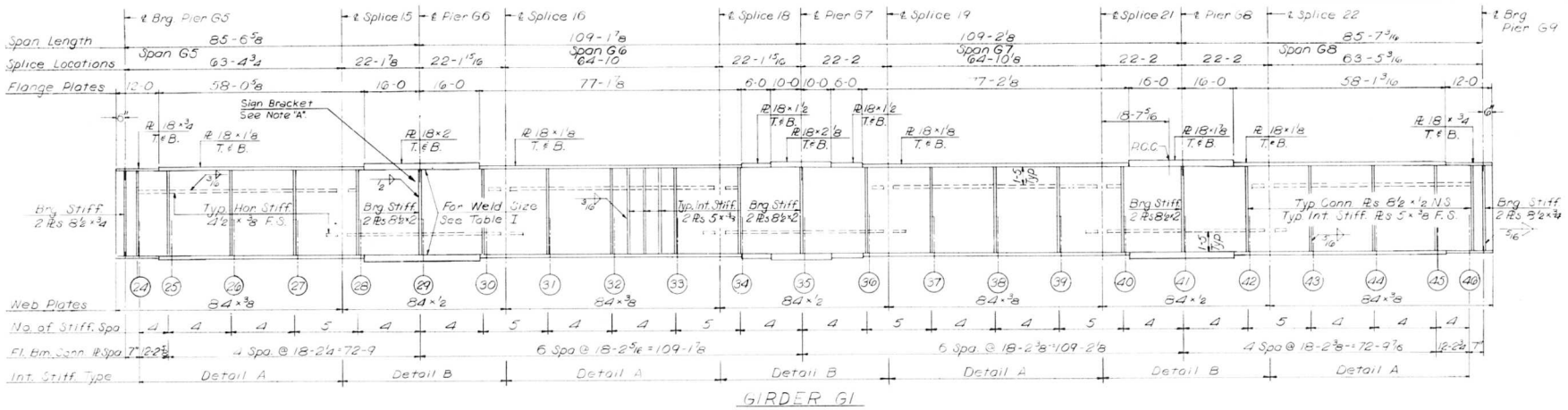
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

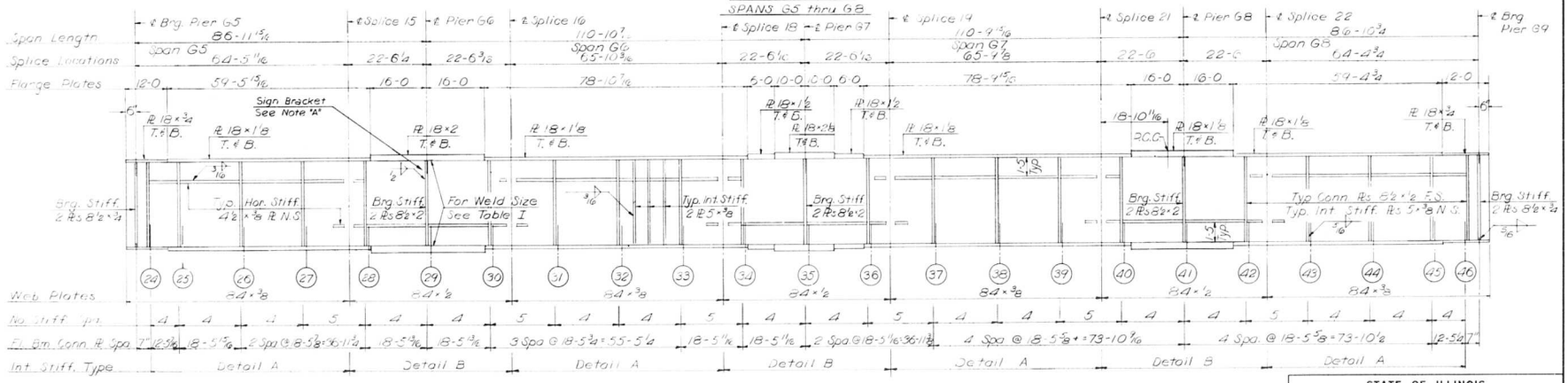
SHEET
255 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	126
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



GIRDER G1
SPANS G5 thru G8



GIRDER G2
SPANS G5 thru G8

NOTES:
All longitudinal dimensions shown are given along ℄ of Web. See Sheet No. 253.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection Plate Details and Table I see Sheet Nos. 348, 349 and 350.
For Sign Bracket Detail see Sheet No. 360.

NOTE "A"
Intermediate Stiffeners should be moved if necessary to clear sign bracket connection plates.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS G1 AND G2
SPANS G5 THRU G8
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 256 OF 526

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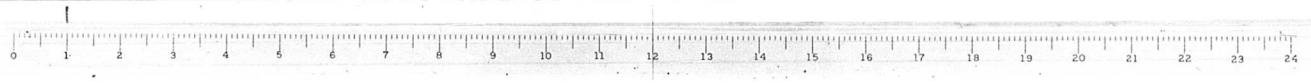
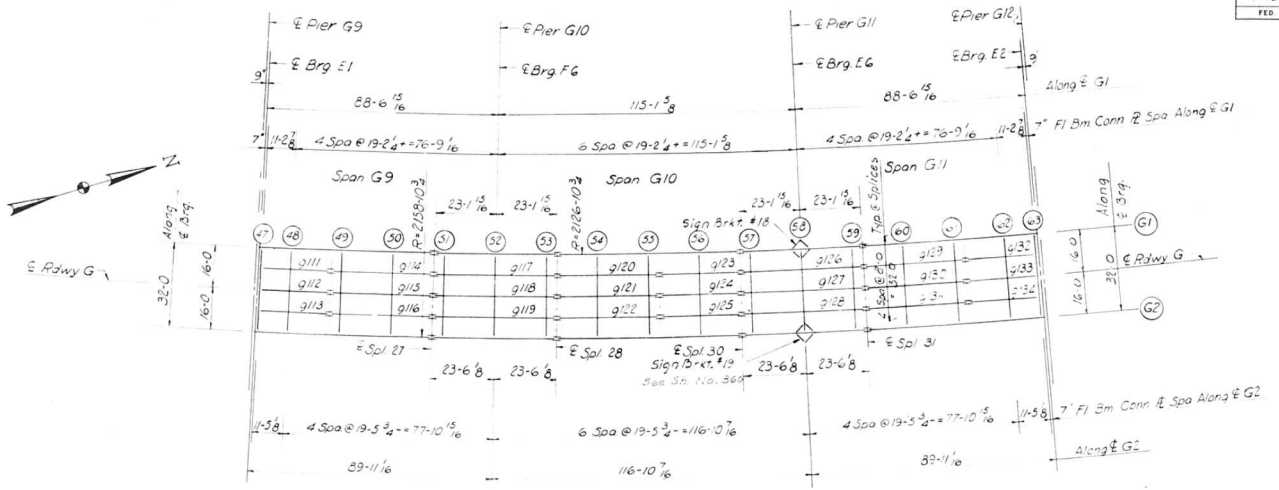


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFB E-1	ST CLAIR	297	67
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans G9-G10-G11

ELEVATION TOP OF GIRDER ℄E B

		GIR. G1	GIR. G2	DIFF.
CL. BRG.		454.581	457.141	2.560
FLOOR BEAM	47	454.576	457.136	2.560
FLOOR BEAM	48	454.478	457.038	2.560
FLOOR BEAM	49	454.310	456.870	2.560
FLOOR BEAM	50	454.147	456.707	2.560
SPLICE	77	454.009	456.569	2.560
FLOOR BEAM	51	453.949	456.509	2.560
FLOOR BEAM	52	453.667	456.227	2.560
FLOOR BEAM	53	453.376	455.936	2.560
SPLICE	78	453.316	455.876	2.560
FLOOR BEAM	54	452.991	455.551	2.560
FLOOR BEAM	55	452.582	455.142	2.560
FLOOR BEAM	56	452.177	454.737	2.560
SPLICE	30	451.847	454.407	2.560
FLOOR BEAM	57	451.737	454.297	2.560
FLOOR BEAM	58	451.705	453.765	2.560
FLOOR BEAM	59	450.673	453.233	2.560
SPLICE	31	450.562	453.122	2.560
FLOOR BEAM	60	450.065	452.463	2.398
FLOOR BEAM	61	449.438	451.632	2.194
FLOOR BEAM	62	448.810	450.800	1.990
FLOOR BEAM	63	448.443	450.312	1.869
CL. BRG.		448.474	450.287	1.863

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, See Sketch Sheet No. 163

BILL OF MATERIAL		
*Structural Steel	Lbs.	359,030

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 8530 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS G9 THRU G11
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFB E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 257 or 526

DESIGNED BY
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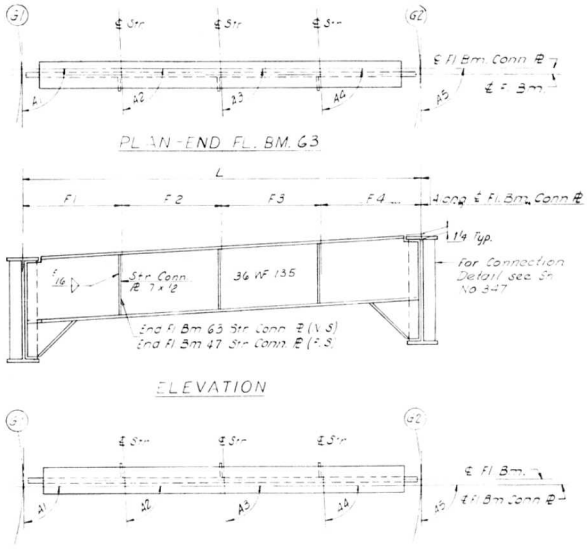
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	
F.A.I. – 70	82-3HVFBE-1	ST. CLAIR	247	128
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

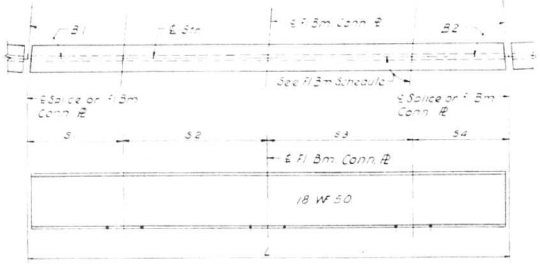
STR	L	S1	S2	S3	S4	B1	B2
111	26 6 3/4		11 3 7/16		15 3 5/16	89.36.28	89.38.37
112	26 8		11 4		15 4	89.36.28	89.38.37
113	26 9 1/4		11 4 9/16		15 4 11/16	89.36.28	89.38.36
114	38 6 1/4	3 11 13/16	19 3 1/8		15 3 5/16	89.28.59	89.28.59
115	38 8	4	19 4		15 4	89.28.59	89.28.59
116	38 9 3/4	4 3/16	19 4 7/8		15 4 11/16	89.28.59	89.28.59
117	46 5 7/8	3 11 13/16	19 3 1/8	19 3 1/8	3 11 13/16	89.22.34	89.22.34
118	46 8	4	19 4	19 4	4	89.22.34	89.22.34
119	46 10 1/16	4 3/16	19 4 7/8	19 4 7/8	4 3/16	89.22.34	89.22.34
120	38 6 1/4	15 3 5/16	19 3 1/8		3 11 13/16	89.28.59	89.28.59
121	38 8	15 4	19 4		4	89.28.59	89.28.59
122	38 9 3/4	15 4 11/16	19 4 7/8		4 3/16	89.28.59	89.28.59
123	30 6 5/8	15 3 5/16			15 3 5/16	89.35.24	89.35.24
124	30 8	15 4			15 4	89.35.24	89.35.24
125	30 9 3/8	15 4 11/16			15 4 11/16	89.35.24	89.35.24
126	46 5 7/8	3 11 13/16	19 3 1/8	19 3 1/8	3 11 13/16	89.22.34	89.22.34
127	46 8	4	19 4	19 4	4	89.22.34	89.22.34
128	46 10 1/16	4 3/16	19 4 7/8	19 4 7/8	4 3/16	89.22.34	89.22.34
129	38 6 1/4	15 3 5/16	19 3 1/8		3 11 13/16	89.28.59	89.28.59
130	38 8	15 4	19 4		4	89.28.59	89.28.59
131	38 9 3/4	15 4 11/16	19 4 7/8		4 3/16	89.28.59	89.28.59
132	26 6 3/4	15 3 5/16	11 3 7/16			89.38.37	89.36.28
133	26 8	15 4	11 4			89.38.37	89.36.28
134	26 9 1/4	15 4 11/16	11 4 9/16			89.38.36	89.36.28

FLOOR BEAM DIMENSIONS

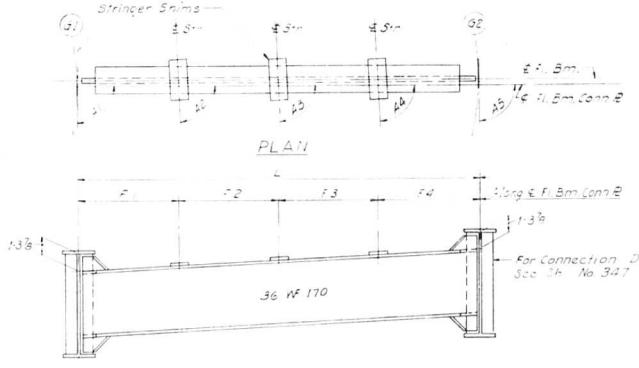
FL BM	L	F1	F2	F3	F4	A1	A2	A3	A4	A5
47	32	8	8	8	8	89.57.51	89.36.28	89.36.28	89.36.28	89.57.53
48	32	7 11 1/2	8	8	8 1/2	90.00.00	89.56.47	89.56.47	89.56.48	90.00.00
49	32	7 11 5/8	8	8	8 3/8	90.00.00	89.35.24	89.35.24	89.35.24	90.00.00
50	32	7 11	8	8	8 1	90.00.00	90.06.25	90.06.25	90.06.25	90.00.00
51	32	7 11 1/2	8	8	8 1/2	90.00.00	89.28.59	89.28.59	89.28.59	90.00.00
52	32	7 10 1/2	8	8	8 1 1/2	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
53	32	7 11 1/2	8	8	8 1/2	90.00.00	90.31.01	90.31.01	90.31.01	90.00.00
54	32	7 11	8	8	8 1	90.00.00	89.53.35	89.53.35	89.53.35	90.00.00
55	32	7 11 5/8	8	8	8 3/8	90.00.00	90.24.36	90.24.36	90.24.36	90.00.00
56	32	7 11 3/8	8	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
57	32	7 11 1/2	8	8	8 1/2	90.00.00	89.28.59	89.28.59	89.28.59	90.00.00
58	32	7 10 1/2	8	8	8 1 1/2	90.00.00	90.00.00	90.00.00	90.00.00	90.00.00
59	32	7 11 1/2	8	8	8 1/2	90.00.00	90.31.01	90.31.01	90.31.01	90.00.00
60	32	7 11	8	8	8 1	90.00.00	89.53.35	89.53.35	89.53.35	90.00.00
61	32	7 11 5/8	8	8	8 3/8	90.00.00	90.24.36	90.24.36	90.24.36	90.00.00
62	32	7 11 1/2	8	8	8 1/2	90.00.00	90.03.13	90.03.13	90.03.12	90.00.00
63	32	8	8	8	8	90.02.09	90.23.32	90.23.32	90.23.32	90.02.07



END FLOOR BEAM 47 AND 63



TYPICAL STRINGER



ELEVATION

INTERIOR FLOOR BEAM 48 THRU 62

Notes:
Length L of Stringers and Fl Bms is correct as given in the table except the increment lengths are given to the nearest 1/16
All dimensions are in the horizontal plane.
For Connection Plate Details see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS G9 THRU G11
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

DESIGNED BY	R.N.F.
DRAWN BY	J.M.
CHECKED BY	
APPROVED BY	F.A.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
258 OF 556

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVF&E-1	ST. CLAIR	247	129
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 48 THRU 50	T1	T2	T3	T4
STR. 111 THRU 116	1 1/2	15/16	1 5/16	1/4

FLOOR BEAM 51 THRU 53	T1	T2	T3	T4
STR. 117 THRU 119	1 9/16	1	1 1/4	11/16

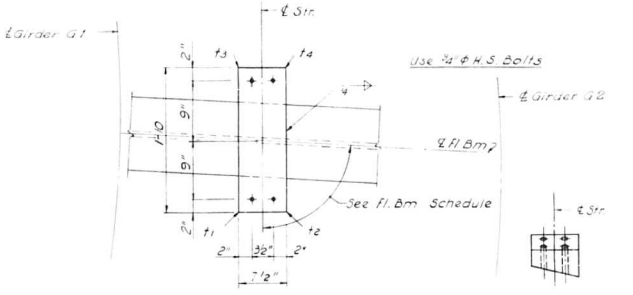
FLOOR BEAM 54 THRU 56	T1	T2	T3	T4
STR. 120 THRU 125	1 11/16	1 1/16	1 3/16	9/16

FLOOR BEAM 57 THRU 59	T1	T2	T3	T4
STR. 126 THRU 128	1 3/4	1 1/8	1 1/8	1/2

FLOOR BEAM 60	T1	T2	T3	T4
STR.				
129	1 13/16	1 1/4	1	7/16
130	1 13/16	1 1/4	1	7/16
131	1 7/8	1 5/16	15/16	3/8

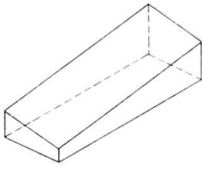
FLOOR BEAM 61	T1	T2	T3	T4
STR.				
129	1 3/4	1 1/4	1	1/2
130	1 13/16	1 5/16	15/16	7/16
131	1 13/16	1 5/16	15/16	7/16

FLOOR BEAM 62	T1	T2	T3	T4
STR.				
132	1 3/4	1 1/4	1	1/2
133	1 3/4	1 5/16	15/16	1/2
134	1 13/16	1 5/16	15/16	7/16

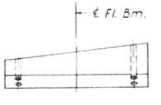


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS G9 THRU G11

POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

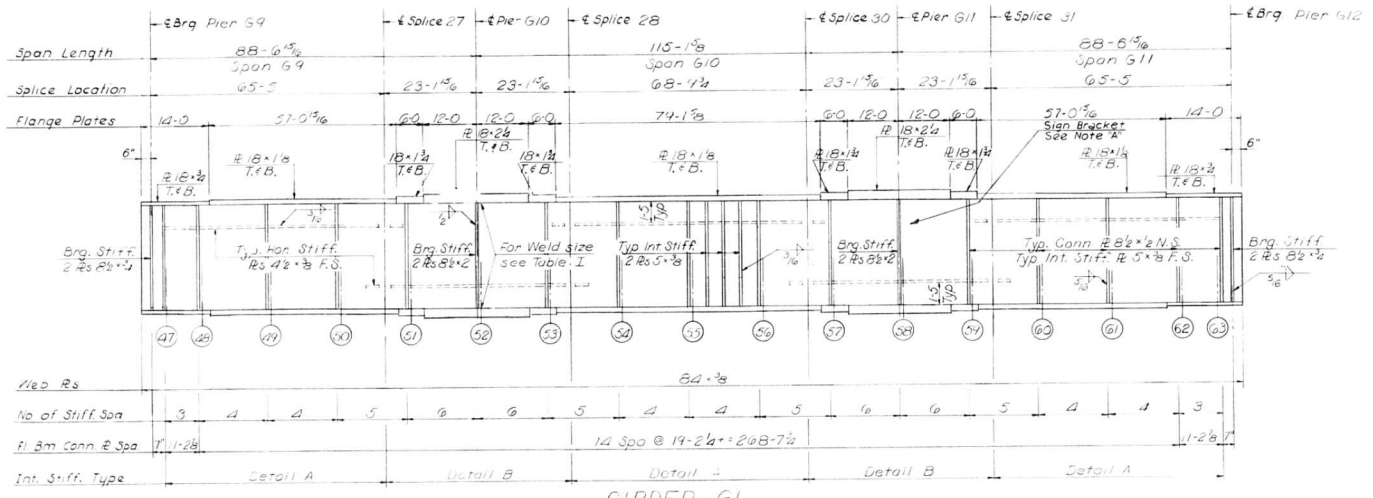
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

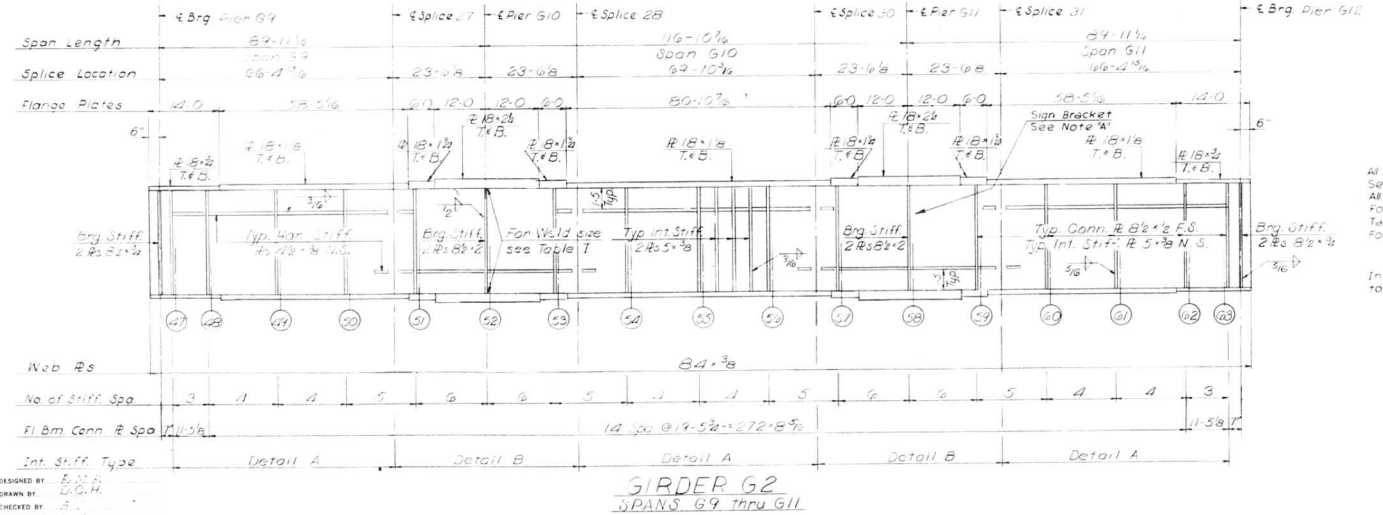
SHEET
259 of 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	130
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER G1
SPANS G9 thru G11



GIRDER G2
SPANS G9 thru G11

NOTES:
All longitudinal dimensions shown are given along ℄ of Web. See Sheet No. 257.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection Plate Details and Table I see Sheet Nos. 348, 349 and 350.
For Sign Bracket Detail see Sheet No. 360.

NOTE "A"
Intermediate Stiffeners should be moved if necessary to clear sign bracket connection plates.

DESIGNED BY E.N.A.
DRAWN BY C.C.H.
CHECKED BY A.
APPROVED BY

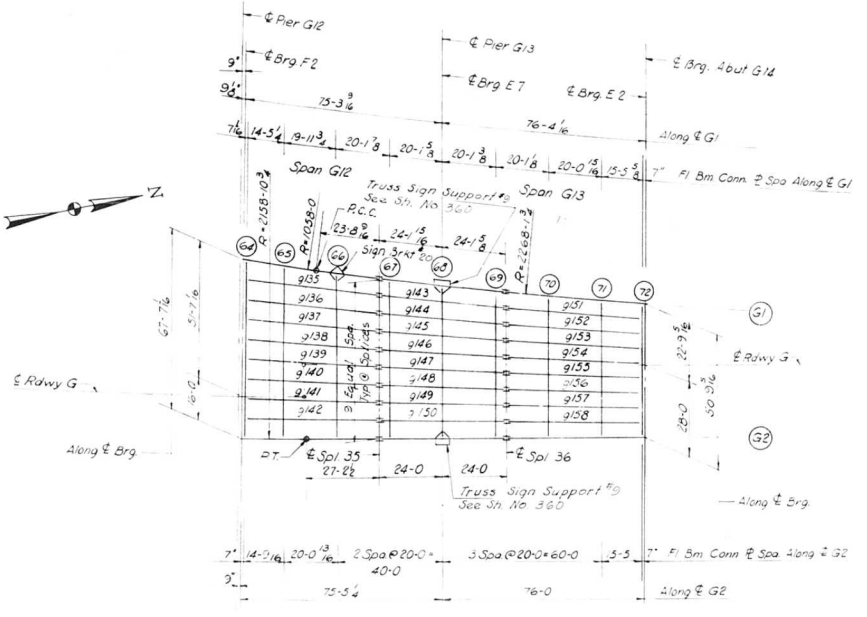
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS G1 AND G2
SPANS G9 THRU G11
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 260 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST CLAIR	247	131
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans G12-G13

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183
For Sign Bracket Detail see Sh No. 361

ELEVATION TOP OF GIRDER WEB

		GIR. G1	GIR. G2	DIFF.
CL. BRG.		446.175	450.215	4.040
FLOOR BEAM	64	446.164	450.185	4.021
FLOOR BEAM	65	445.881	449.440	3.559
FLOOR BEAM	66	445.490	448.429	2.939
SPLICE	35	445.174	447.623	2.449
FLOOR BEAM	67	445.078	447.418	2.340
FLOOR BEAM	68	444.599	446.395	1.796
FLOOR BEAM	69	444.170	445.927	1.757
SPLICE	36	444.075	445.167	1.147
FLOOR BEAM	70	443.509	444.349	.839
FLOOR BEAM	71	447.864	448.326	.462
FLOOR BEAM	72	447.367	447.539	.171
CL. BRG.		447.348	447.508	.160

BILL OF MATERIAL

*Structural Steel	Lbs.	312,230

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel
Est. Wt. 7,690 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS G12 AND G13
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 261 of 526

DESIGNED BY
DRAWN BY K
CHECKED BY
APPROVED BY

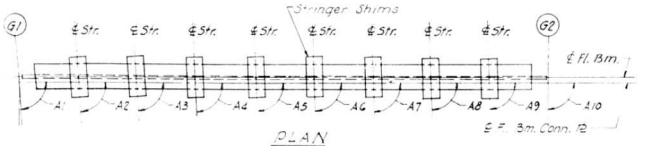
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVFBE-1	ST CLAIR	247	132
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

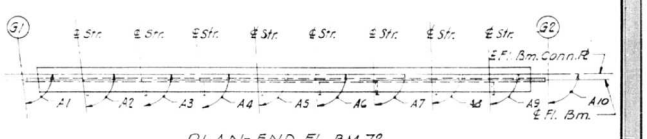
STR	L	S1	S2	S3	S4	B1	B2
135	50 6 3/8		14 5 1/4	19 11 11/16	16 1 7/16	96.17.43	83.02.31
136	50 6 3/8		14 5 5/8	19 11 5/8	16 1 1/8	95.26.25	83.53.49
137	50 6 1/2		14 6 1/16	19 11 5/8	16 13/16	94.35.08	84.45.06
138	50 6 13/16		14 6 1/2	19 11 11/16	16 9/16	93.43.53	85.36.23
139	50 7 3/16		14 7	19 11 13/16	16 3/8	92.52.42	86.27.32
140	50 7 3/4		14 7 9/16	20	16 3/16	92.01.35	87.18.38
141	50 8 7/16		14 8 1/8	20 3/16	16 1/8	91.10.35	88.09..
142	50 9 1/4		14 8 3/4	20 7/16	16		90.19.43	87.00.31
143	48 2 13/16	4 1/4	20 1 3/16	20 1 3/16	4 1/4		95.39.26	84.20.34
144	48 2 3/16	4 3/16	20 7/8	2" 7/8	4 3/16		94.57.13	85.02.47
145	48 1 9/16	4 1/8	20 11/16	20 11/16	4 1/8		94.14.56	85.45.04
146	48 1 1/8	4 1/16	20 7/16	20 7/16	4 1/16		93.32.34	86.27.26
147	48 11/16	4 1/16	20 5/16	20 5/16	4 1/16		92.50.08	87.09.52
148	48 3/8	4 1/16	20 3/16	20 3/16	4 1/16		92.07.38	87.52.28
149	48 3/16	4	20 1/16	20 1/16	4		91.25.07	88.34.53
150	48 1/16	4	20	20	4		90.42.34	89.17.26
151	51 6 15/16	16 5/8	20 3/4	15 5 9/16			94.31.59	85.28.01
152	51 6 1/2	16 7/16	20 9/16	15 5 7/16			93.58.06	86.01.54
153	51 6 1/16	16 5/16	20 7/16	15 5 5/16			93.24.10	86.35.50
154	51 5 3/4	16 1/4	20 5/16	15 5 3/16			92.50.12	87.09.48
155	51 5 1/2	16 1/8	20 3/16	15 5 1/8			92.16.12	87.43.48
156	51 5 1/4	16 1/16	20 1/8	15 5 1/16			91.42.10	88.17.50
157	51 5 1/8	16 1/16	20 1/16	15 5			91.08.08	88.51.52
158	51 5	16	20	15 5			90.34.04	89.25.56

FLOOR BEAM DIMENSIONS

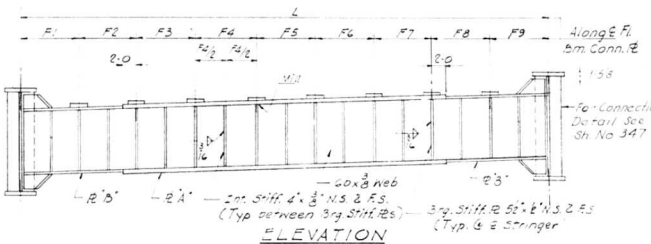
FL BM	L	F1	F2	F3	F4	F5	F6	F7	F8	F9	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	PLATE A	PLATE B
64	67 6	7 6	7 6	7 6	7 6	7 6	7 6	7 6	7 6	7 6	98.21.28	96.17.43	95.26.25	94.35.08	93.43.53	92.52.42	92.01.35	91.10.35	90.19.43	89.57.53	12x3/8	12x3/8
65	65 5 5/16	7 1	7 3 1/2	7 3 7/16	7 3 7/16	7 3 7/16	7 3 7/16	7 3 7/16	7 3 3/8	7 4 1/4	98.00.14	96.43.23	95.52.05	95.00.48	94.09.33	93.18.22	92.27.16	91.36.15	90.45.23	90.00.00	12x2 1/2	12x1/8
66	62 9 1/4	6 9 3/4	6 11 15/16	6 11 7/8	6 11 7/8	6 11 7/8	6 11 7/8	6 11 7/8	6 11 7/8	7 5/16	97.22.34	96.57.29	96.06.11	95.14.54	94.23.39	93.32.28	92.41.22	91.50.22	90.59.29	90.00.00	12x2 1/2	12x1/8
67	60 3 1/4	6 7 15/16	6 8 7/16	6 8 7/16	6 8 7/16	6 8 7/16	6 8 7/16	6 8 7/16	6 8 7/16	6 8 7/16	96.52.01	95.39.26	94.57.13	94.14.56	93.32.34	92.50.08	92.07.38	91.25.07	90.42.34	90.00.00	12x2 1/2	12x1/8
68	57 11 7/16	6 3 7/8	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	6 5 7/16	96.21.30	95.39.26	94.57.13	94.14.56	93.32.34	92.50.08	92.07.38	91.25.07	90.42.34	90.00.00	12x2	12x1/8
69	55 9 3/4	6 2	6 2 1/2	6 2 1/2	6 2 1/2	6 2 1/2	6 2 1/2	6 2 1/2	6 2 1/2	6 2 1/2	95.51.01	95.39.26	94.57.13	94.14.56	93.32.34	92.50.08	92.07.38	91.25.07	90.42.34	90.00.00	12x1/8	12x3/8
70	53 10 1/4	5 10 7/16	6	6	6	6	6	6	6	6	95.20.34	94.31.59	93.58.06	93.24.10	92.50.12	92.16.12	91.42.10	91.08.08	90.34.04	90.00.00	12x1/8	12x7/8
71	52 7/8	5 8 1/8	5 9 5/8	5 9 5/8	5 9 5/8	5 9 5/8	5 9 5/8	5 9 5/8	5 9 5/8	5 9 5/8	94.50.08	94.31.59	93.58.06	93.24.10	92.50.12	92.16.12	91.42.10	91.08.08	90.34.04	90.00.00	12x1/4	12x3/4
72	50 9 7/8	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	5 7 3/4	94.26.41	94.31.59	93.58.06	93.24.10	92.50.12	92.16.12	91.42.10	91.08.08	90.34.04	90.00.00	12x1/8	12x3/4



PLAN

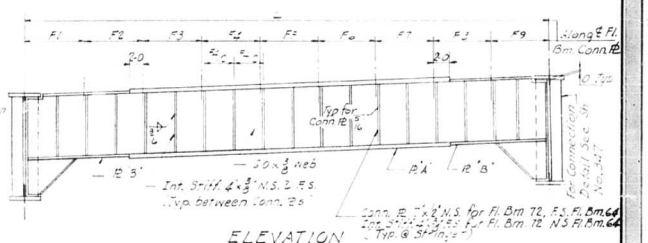


PLAN-END FL. BM. 72

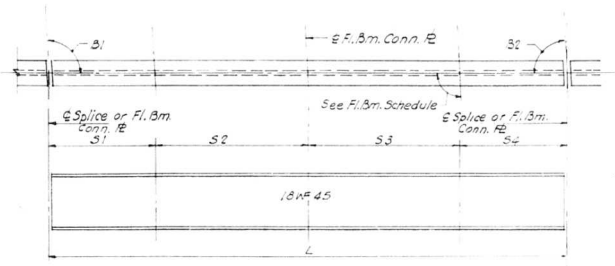


ELEVATION

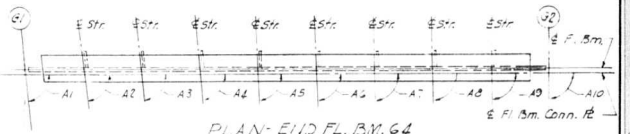
INTERIOR FLOOR BEAM 65 THRU 71



ELEVATION



TYPICAL STRINGER



PLAN-END FL. BM. 64

END FLOOR BEAM 64 AND 72

Notes:

Length L of Stringers and F. Bms. is Correct as given in the table except the increment lengths are given to the nearest 1/2".

All dimensions are in the horizontal plane.

For Intermediate Stiffener, Brg. Stiffener and Connection Plate Details see Sht. No. 344

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS G12 AND G13
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 202 OF 524

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-1	ST CLAIR	247	133
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 65	T1	T2	T3	T4
STR.				
135	1 9/16	1 3/16	1 1/16	11/16
136	1 5/8	1 3/16	1 1/16	5/8
137	1 11/16	1 1/4	1	5/16
138	1 11/16	1 5/16	15/16	9/16
139	1 3/4	1 5/16	15/16	1/2
140	1 3/4	1 3/8	7/8	1/2
141	1 13/16	1 3/8	7/8	7/16
142	1 7/8	1 7/16	13/16	3/8

FLOOR BEAM 66	T1	T2	T3	T4
STR.				
135	1 9/16	1 3/16	1 1/16	11/16
136	1 9/16	1 1/4	1	11/16
137	1 5/8	1 1/4	1	5/8
138	1 11/16	1 5/16	15/16	9/16
139	1 11/16	1 3/8	7/8	9/16
140	1 3/4	1 3/8	7/8	1/2
141	1 3/4	1 7/16	13/16	1/2
142	1 13/16	1 7/16	13/16	7/16

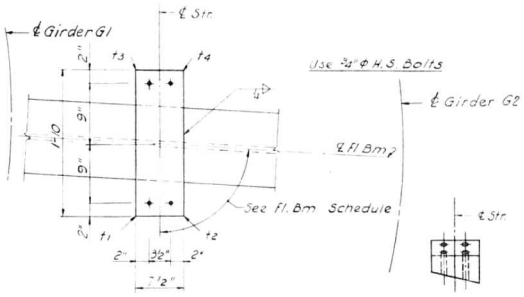
FLOOR BEAM 67	T1	T2	T3	T4
STR.				
143	1 9/16	1 1/4	1	11/16
144	1 5/8	1 5/16	15/16	5/8
145	1 5/8	1 5/16	15/16	5/8
146	1 11/16	1 3/8	7/8	9/16
147	1 11/16	1 7/16	13/16	9/16
148	1 3/4	1 7/16	13/16	1/2
149	1 3/4	1 1/2	3/4	1/2
150	1 13/16	1 1/2	3/4	7/16

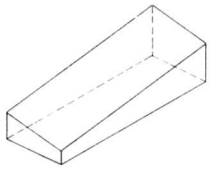
FLOOR BEAM 68	T1	T2	T3	T4
STR.				
143	1 9/16	1 5/16	15/16	11/16
144	1 9/16	1 5/16	15/16	11/16
145	1 5/8	1 3/8	7/8	5/8
146	1 5/8	1 3/8	7/8	5/8
147	1 11/16	1 7/16	13/16	9/16
148	1 11/16	1 1/2	3/4	9/16
149	1 3/4	1 1/2	3/4	1/2
150	1 3/4	1 9/16	11/16	1/2

FLOOR BEAM 69	T1	T2	T3	T4
STR.				
143	1 1/2	1 5/16	15/16	3/4
144	1 9/16	1 3/8	7/8	11/16
145	1 9/16	1 3/8	7/8	11/16
146	1 5/8	1 7/16	13/16	5/8
147	1 5/8	1 1/2	3/4	5/8
148	1 11/16	1 1/2	3/4	9/16
149	1 11/16	1 9/16	11/16	9/16
150	1 3/4	1 9/16	11/16	1/2

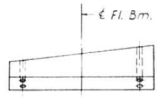
FLOOR BEAM 70	T1	T2	T3	T4
STR.				
151	1 9/16	1 7/16	13/16	11/16
152	1 9/16	1 7/16	13/16	11/16
153	1 5/8	1 1/2	3/4	5/8
154	1 5/8	1 1/2	3/4	5/8
155	1 5/8	1 9/16	11/16	5/8
156	1 11/16	1 9/16	11/16	9/16
157	1 11/16	1 9/16	11/16	9/16
158	1 3/4	1 5/8	5/8	1/2

FLOOR BEAM 71	T1	T2	T3	T4
STR.				
151	1 9/16	1 7/16	13/16	11/16
152	1 9/16	1 1/2	3/4	11/16
153	1 9/16	1 1/2	3/4	11/16
154	1 5/8	1 9/16	11/16	5/8
155	1 5/8	1 9/16	11/16	5/8
156	1 5/8	1 9/16	11/16	5/8
157	1 11/16	1 5/8	5/8	9/16
158	1 11/16	1 5/8	5/8	9/16





ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS G12 AND G13

POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

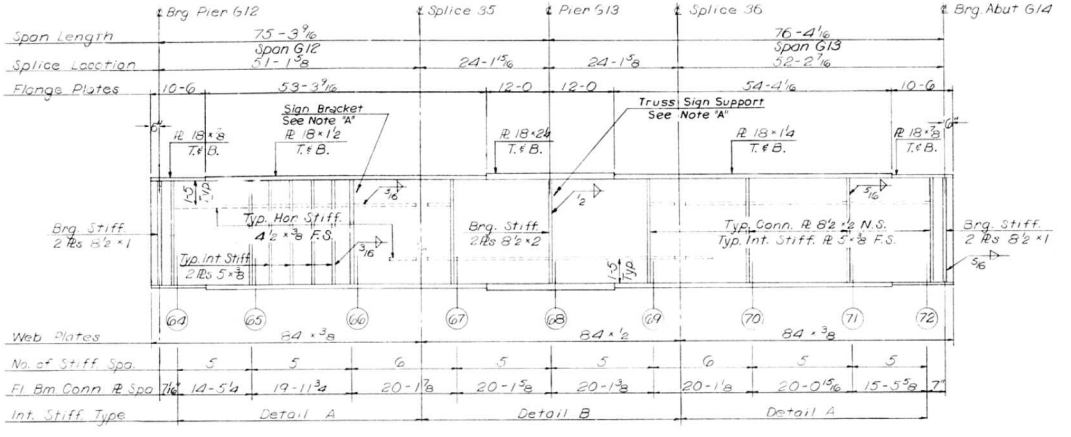
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

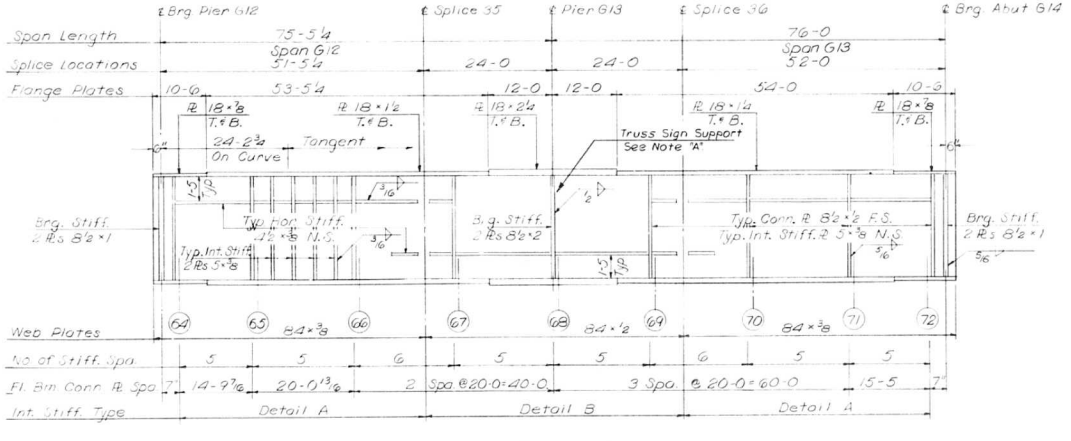
SHEET 263 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. -70	82-3HVF & E-1	ST. CLAIR	247	134
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER G1
SPANS G12 and G13



GIRDER G2
SPANS G12 and G13

NOTES:

All longitudinal dimensions shown are given along ℄ of Web.
See Sheet No. 261.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection Plate Details and Table I see Sheet Nos. 348, 349 and 350.
For Sign Bracket Detail and Truss Sign Support see Sheet No. 360

NOTE "A"

Intermediate Stiffeners should be moved if necessary to clear Sign Bracket or Truss Sign Support Connection Plates.

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DRAWN BY O. C. H.
CHECKED BY
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS G1 AND G2
SPANS G12 AND G13

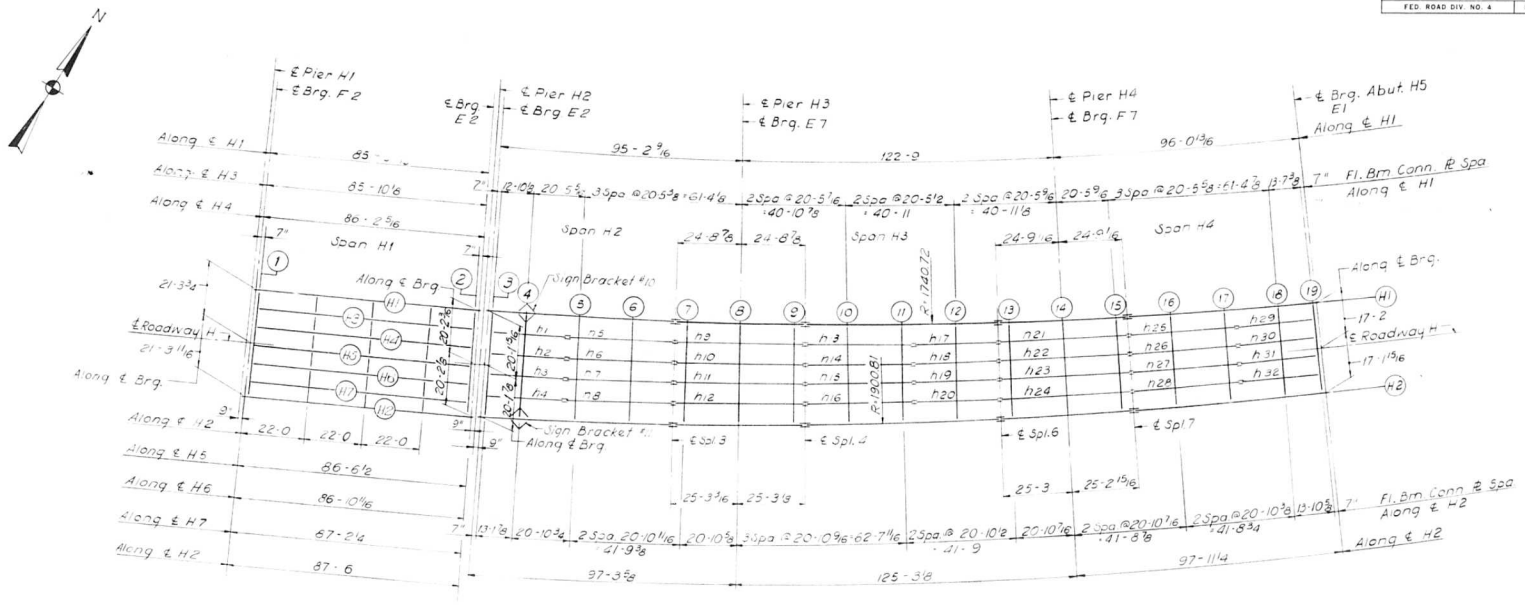
POPLAR STREET BRIDGE APPROACHES
ROADWAY "G"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
264 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVF BE-1	ST CLAIR	247	135
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS H1 THRU H4

ELEVATION TOP OF FLANGE

	STR.H1	STR.H2	DIFF.
CL. BRG.	446.701	450.110	3.409
FLOOR BEAM 1	446.692	450.100	3.408
FLOOR BEAM 2	445.416	448.645	3.229
CL. BRG.	445.407	448.636	3.229

ELEVATION TOP OF GIRDER WEB

	GIR.H1	GIR.H2	DIFF.
CL. BRG.	445.175	448.401	3.226
FLOOR BEAM 3	445.166	448.391	3.225
FLOOR BEAM 4	444.965	448.165	3.200
FLOOR BEAM 5	444.644	447.805	3.161
FLOOR BEAM 6	444.323	447.446	3.123
SPLICE 3	444.069	447.162	3.093
FLOOR BEAM 7	444.001	447.087	3.086
FLOOR BEAM 8	443.679	446.729	3.050
FLOOR BEAM 9	443.356	446.371	3.015
SPLICE 4	443.288	446.296	3.008
FLOOR BEAM 10	443.032	446.015	2.983
FLOOR BEAM 11	442.707	445.659	2.952

	GIR.H1	GIR.H2	DIFF.
FLOOR BEAM 12	442.383	445.304	2.921
SPLICE 6	442.126	445.022	2.896
FLOOR BEAM 13	442.058	444.948	2.890
FLOOR BEAM 14	441.732	444.594	2.862
FLOOR BEAM 15	441.405	444.240	2.835
SPLICE 7	441.337	444.166	2.829
FLOOR BEAM 16	441.077	443.888	2.811
FLOOR BEAM 17	440.749	443.536	2.787
FLOOR BEAM 18	440.421	443.184	2.763
FLOOR BEAM 19	440.203	442.949	2.746
CL. BRG.	440.193	442.939	2.746

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate see sketch Sheet No. 183
For Sign Bracket Details see Sht No 340

BILL OF MATERIAL		
*Structural Steel	Lbs.	646,740

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 13,440 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS H1 THRU H4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "H"
F.A.I RT. 70 ST. CLAIR CO. SECTION 82-3HVF BE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 265 OF 526

DESIGNED BY
DRAWN BY J. M.
CHECKED BY
APPROVED BY

Rev. Str. Steel from 649,510# to 646,740# 6-3-66 N.R.F.

STRINGER DIMENSIONS

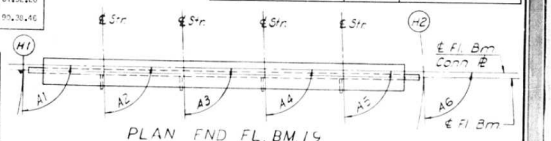
STR	L	S1	S2	S3	S4	B1	B2
1	29 1 9/16		12 10 7/8		16 2 3/4	89.54.39	89.07.23
2	29 3 3/16		12 11 5/8		16 3 9/16	89.38.00	89.24.00
3	29 4 13/16		13 3/8		16 4 7/16	89.21.29	89.40.33
4	29 6 7/16		13 1 1/8		16 5 5/16	89.05.08	89.56.54
5	41 13/16	4 3 11/16	20 6 3/8		16 2 3/4	89.44.34	88.57.18
6	41 2 15/16	4 3 7/8	20 7 7/16		16 3 9/16	89.28.47	89.13.06
7	41 5 1/16	4 4 1/8	20 8 1/2		16 4 7/16	89.13.07	89.28.45
8	41 7 3/16	4 4 3/8	20 9 5/8		16 5 1/4	88.57.36	89.44.11
9	49 8 3/16	4 3 11/16	20 6 7/16	20 6 7/16	4 3 11/16	89.34.42	88.[illegible]
10	49 10 3/4	4 3 7/8	20 7 7/16	20 7 1/2	4 3 7/8	89.20.02	89.05.27
11	50 1 1/4	4 4 1/8	20 8 1/2	20 8 1/2	4 4 1/8	89.05.30	89.20.00
12	50 3 3/4	4 4 5/16	20 9 9/16	20 9 9/16	4 4 5/16	88.51.04	89.34.25
13	41 15/16	16 2 13/16	20 [illegible]		4 3 11/16	89.41.12	89.00.40
14	41 [illegible]	16 3 9/16	20 7 1/2		4 3 7/8	89.27.40	89.14.12
15	[illegible] 5	16 4 3/8	20 8 1/2		4 4 1/8	89.14.15	89.27.37
16	41 7 1/16	16 5 1/4	20 9 1/[illegible]		4 4 5/16	89.00.56	89.40.56
17	32 5 5/8	16 2 13/16			16 2 13/16	89.48.01	89.10.14
18	32 7 3/16	16 3 5/8			16 3 5/8	89.35.25	89.22.51
19	32 8 13/16	16 4 3/8			16 4 3/8	89.22.54	89.35.21
20	32 10 3/8	16 5 3/16			16 5 3/16	89.10.30	89.47.45
21	49 8 7/16	4 3 11/16	20 6 1/2	20 6 9/16	4 3 11/16	89.30.05	88.55.25
22	49 10 13/16	4 3 7/8	20 7 1/2	20 7 1/2	4 3 7/8	89.18.31	89.06.58
23	50 1 3/16	4 4 1/8	20 8 1/2	20 8 1/2	4 4 1/8	89.07.03	89.18.27
24	50 3 1/2	4 4 5/16	20 9 7/16	20 9 7/16	4 4 5/16	88.55.39	89.29.50
25	41 1 1/8	16 2 7/8	20 6 9/16		4 3 11/16	89.36.33	89.05.20
26	41 3 1/16	16 3 5/8	20 7 1/2		4 3 7/8	89.26.08	89.15.44
27	41 4 15/16	16 4 3/8	20 8 7/16		4 4 1/8	89.15.48	89.26.04
28	41 6 7/8	16 5 1/8	20 9 7/16		4 4 5/16	89.05.33	89.36.19
29	29 10 7/8	16 2 7/8	13 8			89.45.49	89.16.13
30	30 5/16	16 3 5/8	13 8 11/16			89.36.19	89.25.43
31	30 1 11/16	16 4 3/8	13 9 5/16			89.26.53	89.35.09
32	30 3 1/8	16 5 1/8	13 9 15/16			89.17.31	89.44.31

FLOOR BEAM DIMENSIONS

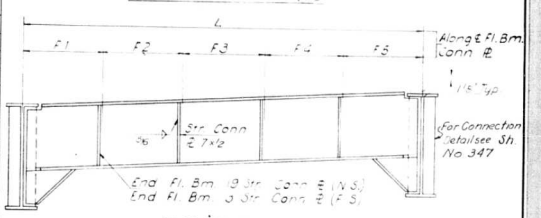
FL BM	L	F1	F2	F3	F4	F5	F6	A1	A2	A3	A4	A5	A6	A7
1	46 7 3/16	7 2 1/2	7 2 1/2	7 2 1/2	7 2 1/2	7 2 1/2	6 10 5/8	6 10 5/8	89.22.11	89.22.11	89.22.11	89.22.11	89.22.11	88.37.09	87.50.26
2	24 4 1/2	7 2 9/16	7 2 9/16	7 2 9/16	7 2 9/16	5 9 1/8	5 9 1/8	92.08.31	92.08.31	92.08.31	92.08.31	92.08.31	92.08.31	91.23.29	90.38.46

FL BM	L	F1	F2	F3	F4	F5	A1	A2	A3	A4	A5	A6	SECTION
3	40 3 11/16	8 3/4	8 3/4	8 3/4	8 3/4	8 3/4	90.40.04	89.54.39	89.38.00	89.21.29	89.05.08	89.15.47	36 W 160
4	39 11 7/8	7 11 1/4	8	8	8	8 11/16	90.41.50	90.21.45	90.05.05	89.48.35	89.32.13	89.19.03	36 W 194 11 + 36 R T & B
5	39 6	7 10 1/4	7 10 13/16	7 10 13/16	7 10 13/16	7 11 5/16	90.40.34	89.52.46	89.36.58	89.21.19	89.05.47	89.20.17	36 W 194 11 + 36 R T & B
6	39 5/16	7 8 5/16	7 9 11/16	7 9 11/16	7 9 11/16	7 11	90.39.18	90.31.50	90.16.02	90.00.22	89.44.51	89.21.31	36 W 194 11 + 36 R T & B
7	38 6 13/16	7 7 7/8	7 8 9/16	7 8 9/16	7 8 9/16	7 9 3/16	90.38.02	89.42.54	89.28.14	89.13.41	88.59.16	89.29.46	36 W 194 11 + 36 R T & B
8	38 1 7/16	7 5 3/8	7 7 1/2	7 7 1/2	7 7 1/2	7 9 1/2	90.36.45	90.21.58	90.07.18	89.52.45	89.38.19	89.24.01	36 W 194 11 + 36 R T & B
9	37 8 5/16	7 5 13/16	7 6 7/16	7 6 7/16	7 6 7/16	7 7 1/8	90.35.28	91.01.01	90.46.21	90.31.49	90.17.23	89.25.16	36 W 170 11 + 36 R T & B
10	37 3 5/16	7 4 1/8	7 5 1/2	7 5 1/2	7 5 1/2	7 6 13/16	90.34.11	90.12.05	89.58.33	89.45.08	89.31.49	89.26.32	36 W 170 11 + 36 R T & B
11	36 10 9/16	7 4	7 4 1/2	7 4 1/2	7 4 1/2	7 5	90.32.54	90.51.09	90.37.37	90.24.11	90.10.53	89.27.48	36 W 170 11 + 36 R T & B
12	36 5 15/16	7 2 11/16	7 3 5/8	7 3 5/8	7 3 5/8	7 4 7/16	90.31.36	90.18.53	90.06.17	89.53.47	89.41.22	89.29.04	36 W 194
13	36 1 1/2	7 2 1/16	7 2 11/16	7 2 11/16	7 2 11/16	7 3 3/8	90.30.18	89.38.16	89.26.42	89.15.14	89.03.51	89.30.70	36 W 194
14	35 9 5/16	6 11 3/4	7 1 7/8	7 1 7/8	7 1 7/8	7 3 7/8	90.29.00	90.17.20	90.05.46	89.54.18	89.42.55	89.31.37	36 W 194
15	35 5 1/4	7 3/8	7 1 1/16	7 1 1/16	7 1 1/16	7 1 11/16	90.27.41	90.56.24	90.44.50	90.33.22	90.21.58	89.37.53	36 W 152
16	35 1 3/8	6 10 15/16	7 5/16	7 5/16	7 5/16	7 1 5/8	90.26.23	90.07.25	89.57.01	89.46.41	89.36.26	89.34.10	36 W 130
17	34 9 11/16	6 11	6 11 9/16	6 11 9/16	6 11 9/16	7 1/16	90.25.04	90.46.29	90.36.04	90.25.45	90.15.29	89.35.28	36 W 170
18	34 4 1/4	6 10 1/16	6 10 7/8	6 10 7/8	6 10 7/8	6 11 9/16	90.23.45	90.16.42	90.07.11	89.57.45	89.48.24	89.36.45	36 W 170
19	34 4	6 10 3/8	6 10 3/8	6 10 3/8	6 10 3/8	6 10 3/8	90.23.59	90.43.47	90.34.17	90.24.51	90.15.29	89.38.42	36 W 150

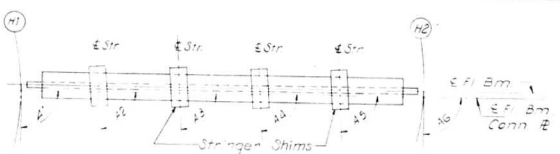
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. - 70	82-3HVF&E-1	ST. CLAIR	247	136
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



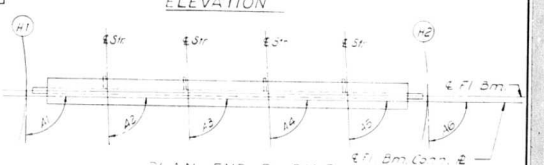
PLAN END FL. BM. 1,4



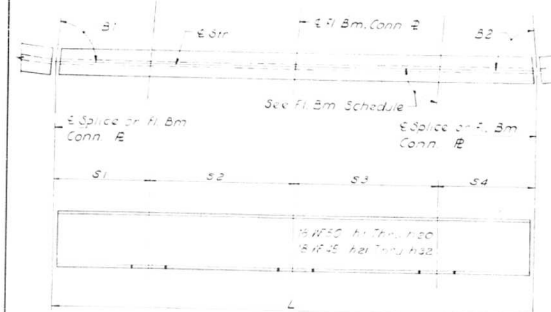
ELEVATION



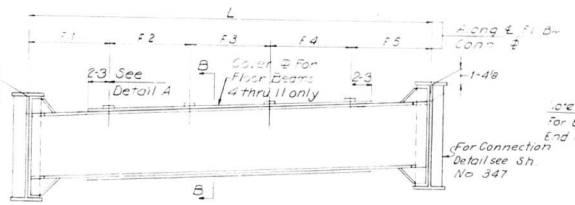
PLAN



PLAN END FL. BM. 3

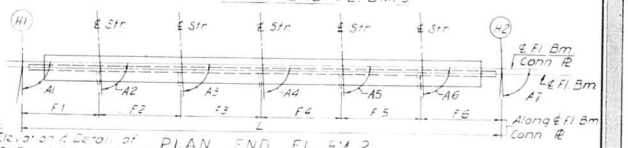


TYPICAL STRINGER



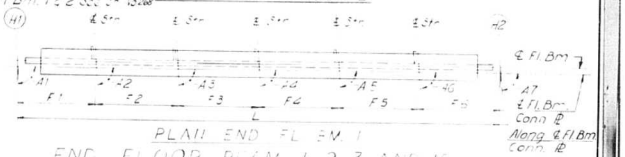
ELEVATION

INTERIOR FLOOR BEAM 4 THRU 18



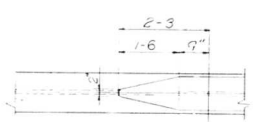
Note: For Elevation & Detail of End Fl. Bm 1,2,2 See Sh No 268

PLAN END FL. BM. 2



PLAN END FL. BM. 1

END FLOOR BEAM 1, 2, 3 AND 19



DETAIL A



SECTION B-B

For Floor Beams 4 thru 11 only

Notes:
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 16.
All dimensions are in the horizontal plane
for Intermediate Stiffener, Brg. Stiffener and Connection Plate Details See Sh No 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS H1 THRU H4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "H"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 266 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	137
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

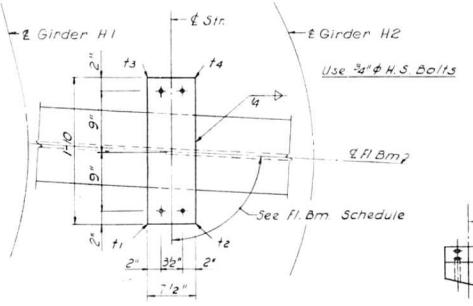
FLOOR BEAM 3 THRU 6	T1	T2	T3	T4
STR. 1 THRU 8	1 3/8	3/4	1	3/8

FLOOR BEAM 7 THRU 9	T1	T2	T3	T4
STR. 9 THRU 12	1 3/8	3/4	1	3/8

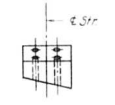
FLOOR BEAM 10 THRU 12	T1	T2	T3	T4
STR. 13 THRU 20	1 3/8	3/4	1	3/8

FLOOR BEAM 13 THRU 15	T1	T2	T3	T4
STR. 21 THRU 24	1 3/8	3/4	1	3/8

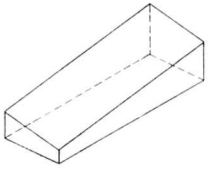
FLOOR BEAM 16 THRU 18	T1	T2	T3	T4
STR. 25 THRU 32	1 3/8	3/4	1	3/8



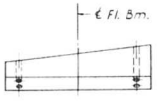
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS H2 THRU H4

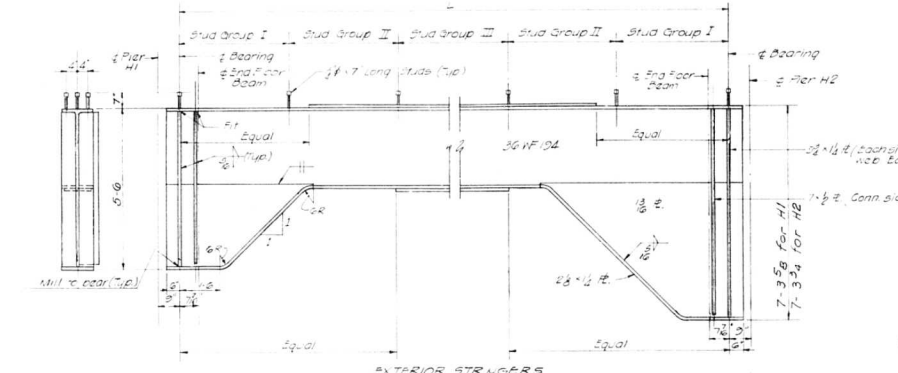
POPLAR STREET BRIDGE APPROACHES
ROADWAY "H"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

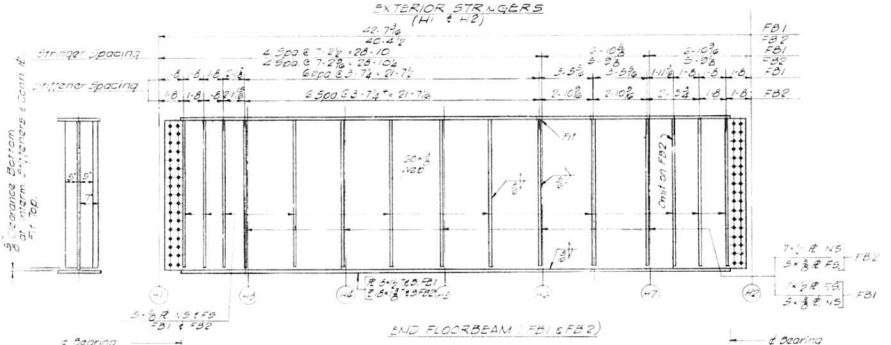
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 267 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-I	ST. CLAIR	247	138
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

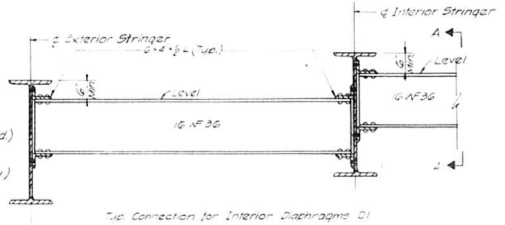


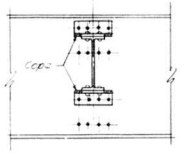
EXTERIOR STRINGERS
(H1 & H2)

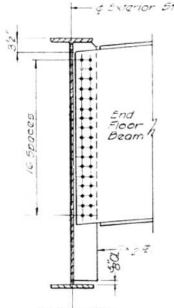


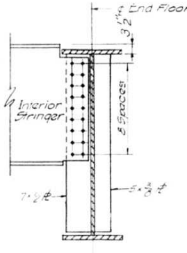
END FLOORBEAM (FB1 & FB2)

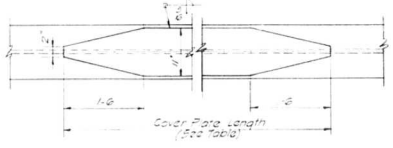
INTERIOR STRINGER
(H3 thru H7)



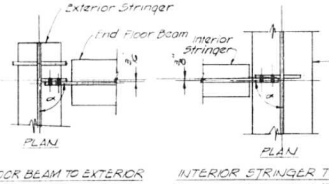








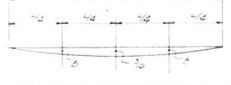
NOTE:
Clip all stiffeners and connection plates 1½ x ½ at corners to clear welding of flange to web and to clear beam fillets.



END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION

NOTE: For Angles see End Floor Beam Schedule Sheet No. 266



NOTES:
For Expansion Device Detail see Sheet No. 363
For Framing Plan see Sheet No. 265

STRINGER	COVER PL. LENGTHS		SHEAR CONN. SPACING			
	LENGTH L	TOP COV. PL	BOTT COV. PL	STUD GROUP I	STUD GROUP II	STUD GROUP III
H1	86-5⅞	——	11½ x 62-0	3@8½, 24@7½, 28@10½"		
H3	86-10⅛	——	1 x 62-3	3@8½, 24@7½, 17@10½		
H4	86-2⅞	——	11½ x 62-8	3@8½, 24@7½, 27@10½"		
H5	86-6½	——	11½ x 63-0	3@8½, 24@7½, 28@10½"		
H6	86-10⅛	——	11½ x 63-3	3@8½, 24@7½, 28@10½"		
H7	87-2¼	——	1 x ½ x 63-6	3@8½, 24@7½, 28@10½"		
H2	87-6	11½ x ½ x 37-6	1 x ½ x 64-0	3@8½, 24@7½, 30@10½"		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN H1

POPLAR STREET BRIDGE APPROACHES
ROADWAY "H"

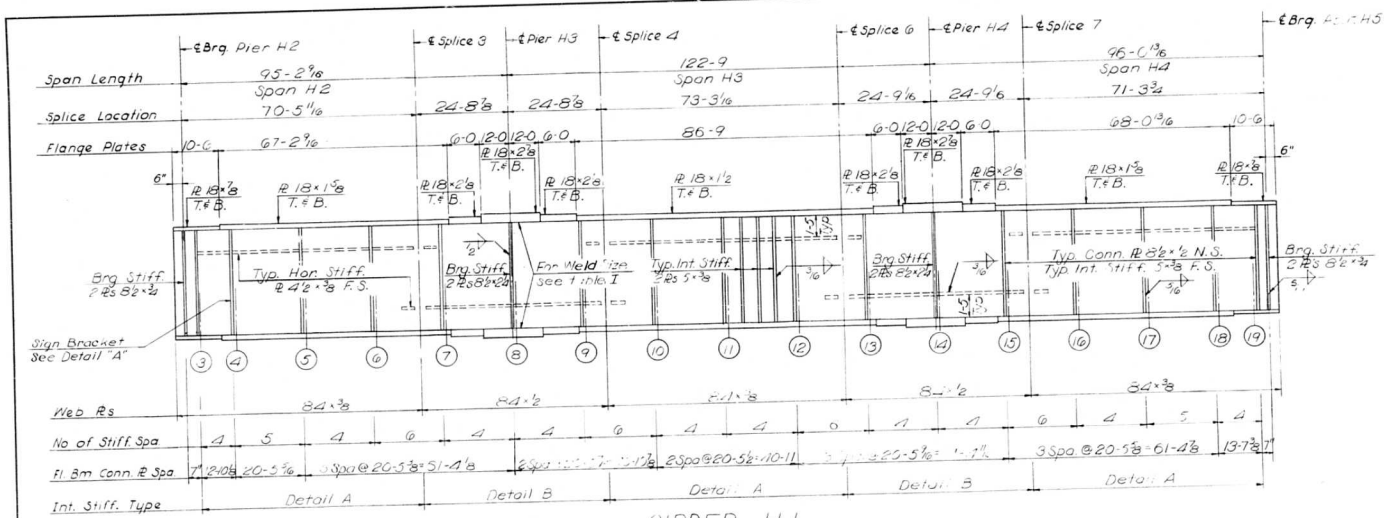
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

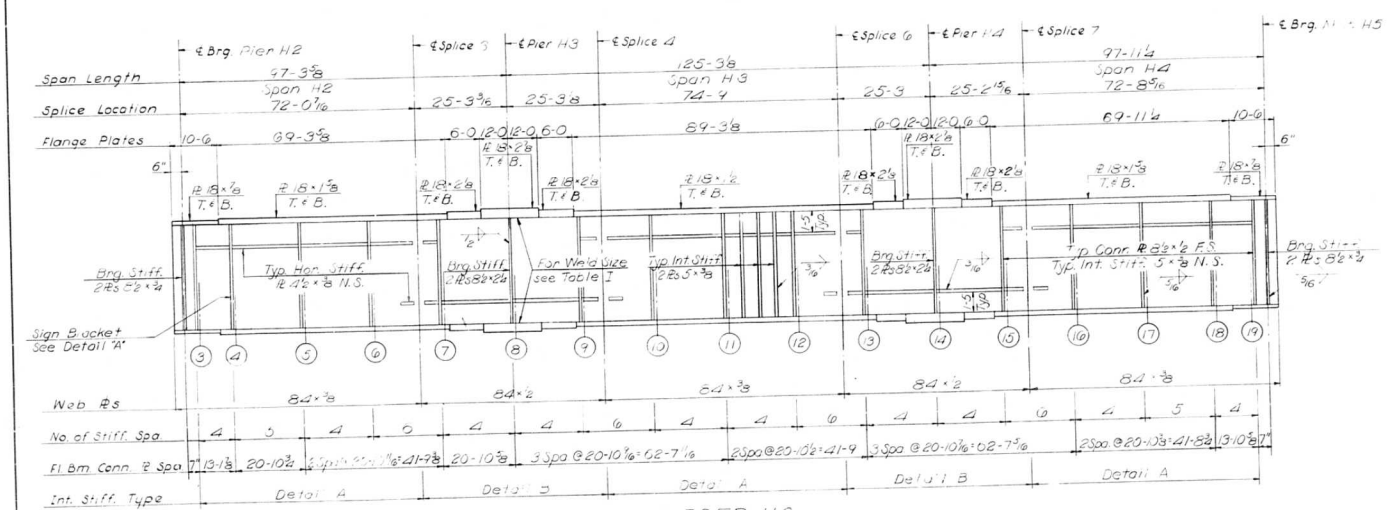
SHEET 268 of 526

DESIGNED BY HJ
DRAWN BY VT
CHECKED BY LW
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	139
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER H1
SPANS H2 thru H4



GIRDER H2
SPANS H2 thru H4

Note "A"
Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plates.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 205.

All Bearing Stiffeners and Connection Plate Details and Table I see Sh. No. 348 thru 350.

For Sign Bracket Detail see Sh. No. 360

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

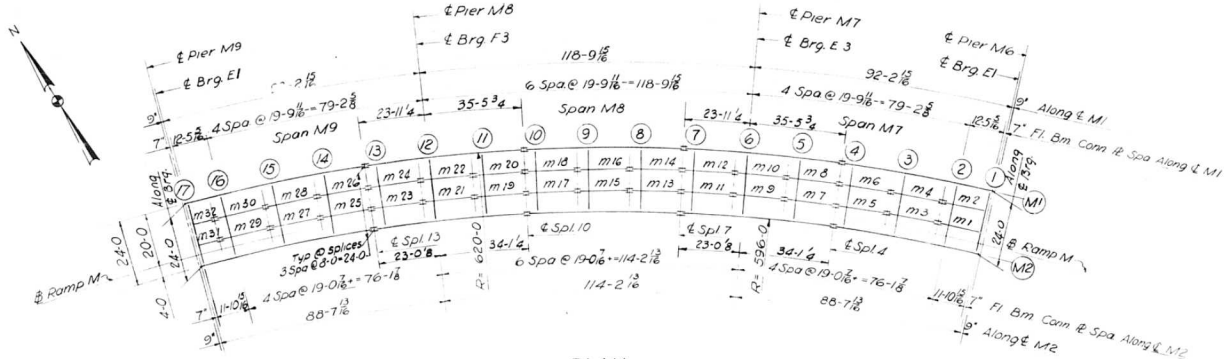
GIRDERS H1 AND H2
SPANS H2 THRU H4
POPLAR STREET BRIDGE APPROACHES
ROADWAY "H"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 269 OF 526

DESIGNED BY R.M.S.
DRAWN BY D.C.H.
CHECKED BY S.T.
APPROVED BY [illegible]

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70	82-3HVF&E-1	ST. CLAIR	247	140
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans M7 Thru M9

ELEVATION TOP OF GIRDER WEB

		GIR. M2	GIR. M1	DIFF.
CL. BRG.		474.931	476.851	1.920
FLOOR BEAM	1	474.918	476.839	1.921
FLOOR BEAM	2	474.670	476.590	1.920
FLOOR BEAM	3	474.274	476.193	1.919
FLOOR BEAM	4	473.877	475.797	1.920
SPLICE	4	473.794	475.714	1.920
FLOOR BEAM	5	473.367	475.287	1.920
FLOOR BEAM	6	472.828	474.748	1.920
FLOOR BEAM	7	472.288	474.208	1.920
SPLICE	7	472.175	474.095	1.920
FLOOR BEAM	8	471.633	473.553	1.920
FLOOR BEAM	9	470.947	472.867	1.920
FLOOR BEAM	10	470.261	472.181	1.920
SPLICE	10	470.118	472.038	1.920
FLOOR BEAM	11	469.460	471.380	1.920
FLOOR BEAM	12	468.628	470.548	1.920
FLOOR BEAM	13	467.796	469.716	1.920
SPLICE	13	467.623	469.543	1.920
FLOOR BEAM	14	466.871	468.791	1.920
FLOOR BEAM	15	465.921	467.842	1.921
FLOOR BEAM	16	464.971	466.892	1.921
FLOOR BEAM	17	464.377	466.296	1.919
CL. BRG.		464.348	466.268	1.920

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	LBS.	351,213

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6320 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS M7 THRU M9
POPLAR STREET BRIDGE APPROACHES
RAMP "M"
STATION
F A I RT 70 ST CLAIR CO SECTION 82-3HVFBE-1
H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS
SHEET 270-526

DESIGNED BY S
DRAWN BY J K
CHECKED BY A
APPROVED BY A

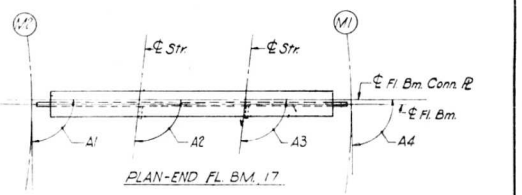
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	L
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

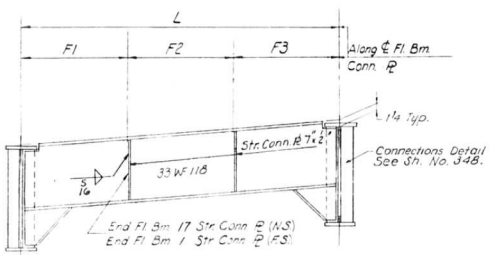
STR	L	S1	S2	B1	B2
1	16 1 3/8	12 1 1/16	4 5/16	89.06.33	89.14.08
2	16 4 1/8	12 3 3/16	4 15/16	89.06.36	89.14.05
3	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
4	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
5	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
6	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
7	19 3 1/2	15 3 3/16	4 5/16	89.05.06	89.05.06
8	19 6 9/16	15 5 5/8	4 15/16	89.05.06	89.05.06
9	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
10	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
11	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
12	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
13	19 3 1/2	15 3 3/16	4 5/16	89.05.06	89.05.06
14	19 6 9/16	15 5 5/8	4 15/16	89.05.06	89.05.06
15	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
16	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
17	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
18	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
19	19 3 1/2	15 3 3/16	4 5/16	89.05.06	89.05.06
20	19 6 9/16	15 5 5/8	4 15/16	89.05.06	89.05.06
21	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
22	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
23	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
24	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
25	19 3 1/2	15 3 3/16	4 5/16	89.05.06	89.05.06
26	19 6 9/16	15 5 5/8	4 15/16	89.05.06	89.05.06
27	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
28	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
29	19 3 1/2	15 3 3/16	4 5/16	89.05.05	89.05.05
30	19 6 9/16	15 5 5/8	4 15/16	89.05.05	89.05.05
31	8 3/4	8 3/4		89.37.03	89.29.28
32	8 2 1/4	8 2 1/4		89.37.00	89.29.31

FLOOR BEAM DIMENSIONS

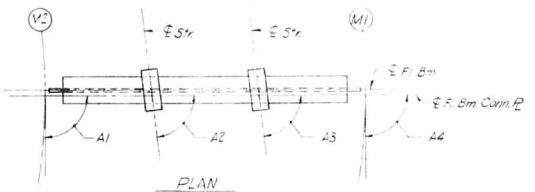
FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24	8	8	8	89.52.18	89.06.33	89.06.36	89.52.36
2	24	7 11 1/2	8	8 1/2	90.00.00	90.22.57	90.23.00	90.00.00
3	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
4	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
5	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
6	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
7	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
8	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
9	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
10	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
11	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
12	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
13	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
14	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
15	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
16	24	7 11 3/8	8	8 5/8	90.00.00	90.31.59	90.31.59	90.00.00
17	24	8	8	8	90.07.42	90.30.32	90.30.29	90.07.24



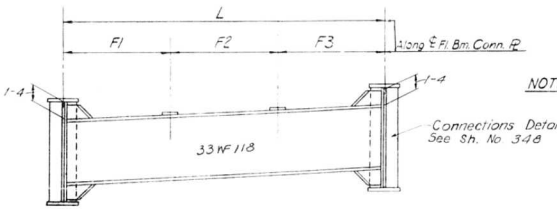
PLAN-END FL. BM. 17



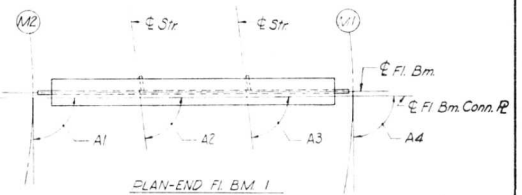
ELEVATION



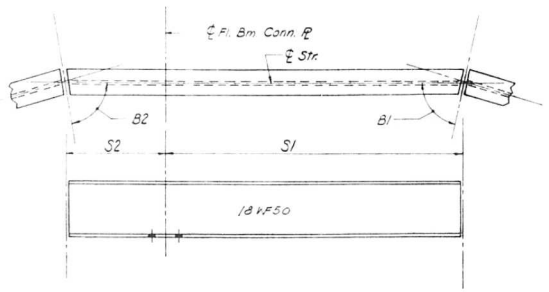
PLAN



ELEVATION
INTERIOR FLOOR BEAM 2 - 16
LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 1
END FLOOR BEAM 1 AND 17
LOOKING TOWARDS INCREASING STATION



TYPICAL STRINGER

NOTES:
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 1/8".
All dimensions are in the horizontal plane.
For Connection Plate Def. see Sht. No. 348

DESIGNED BY F.M.
DRAWN BY J.K.
CHECKED BY A.
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS M7 THRU M9
POPLAR STREET BRIDGE APPROACHES
RAMP "M"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 271 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF&E-1	ST. CLAIR	247	142
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

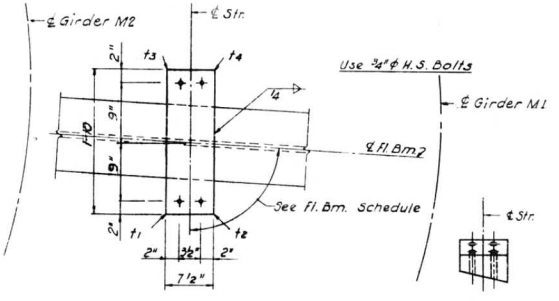
FLOOR BEAM 2 THRU 4	T1	T2	T3	T4
STR. 1 THRU 6	1 11/16	1 1/8	1 1/4	11/16

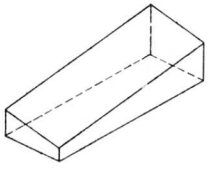
FLOOR BEAM 5 THRU 7	T1	T2	T3	T4
STR. 7 THRU 12	1 13/16	1 3/16	1 3/16	9/16

FLOOR BEAM 8 THRU 10	T1	T2	T3	T4
STR. 13 THRU 18	1 7/8	1 1/4	1 1/8	1/2

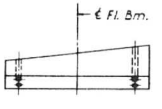
FLOOR BEAM 11 THRU 13	T1	T2	T3	T4
STR. 19 THRU 24	1 15/16	1 3/8	1	7/16

FLOOR BEAM 14 THRU 16	T1	T2	T3	T4
STR. 25 THRU 32	2	1 7/16	15/16	3/8





ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS M7 THRU M9

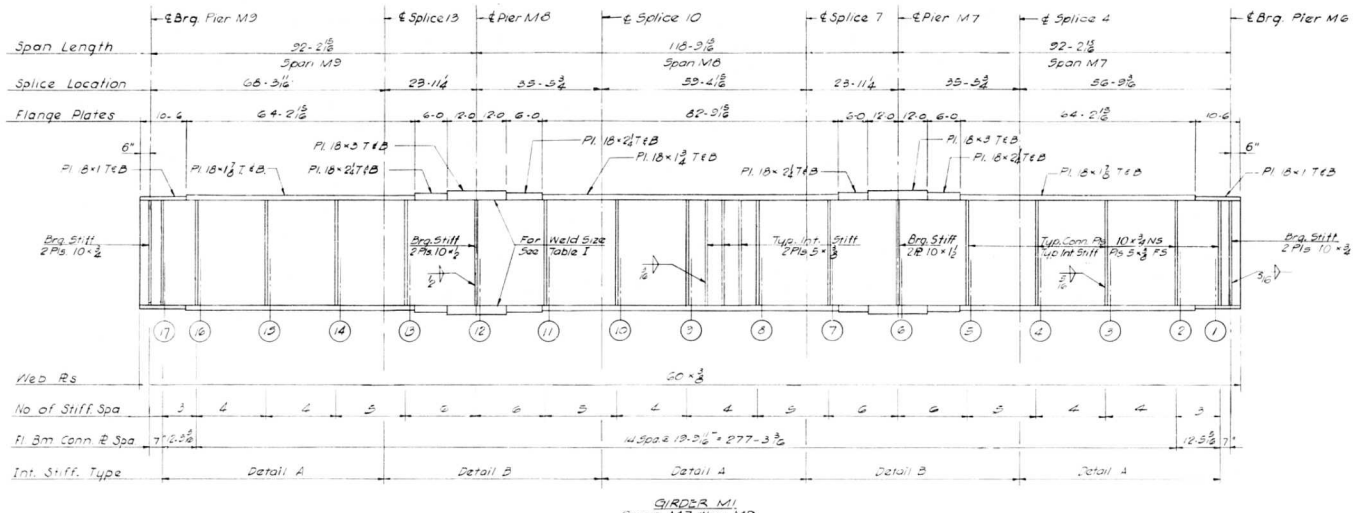
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

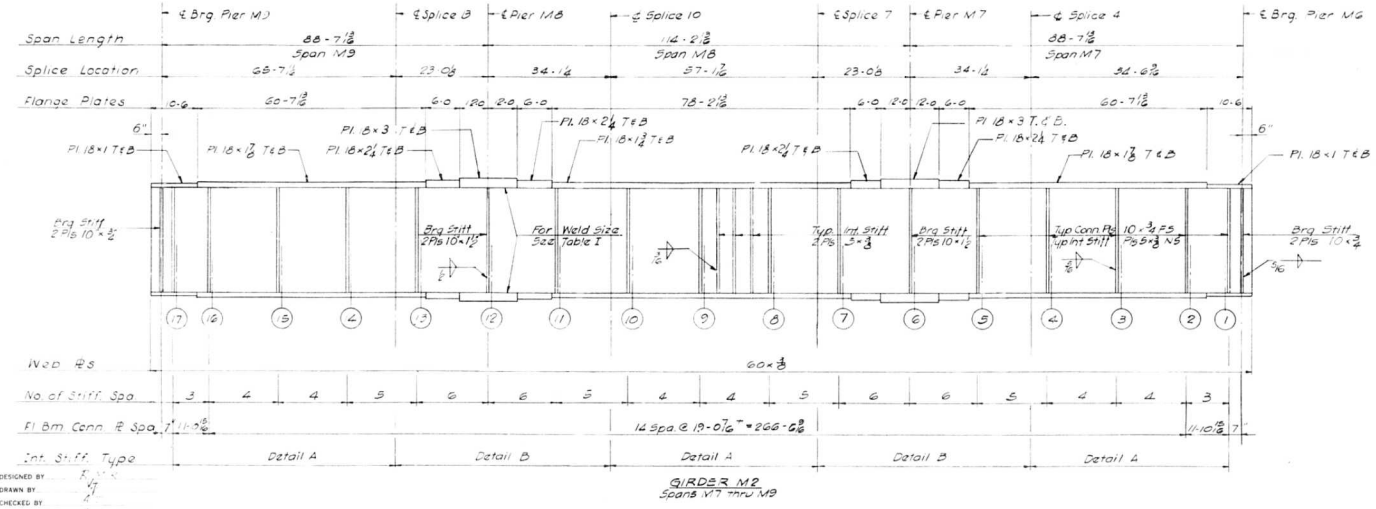
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
272 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	143
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER M1
Spans M7 thru M9



GIRDER M2
Spans M7 thru M9

Notes:
All Longitudinal Dimensions Shown are given along ℄ of Web. See Sheet No. 270
All Bearing Stiffeners and Connection Plates to be vertical
For Splice, Stiffener Connection Plate Details and Table I see Sheet No. 348, 349, 350.

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

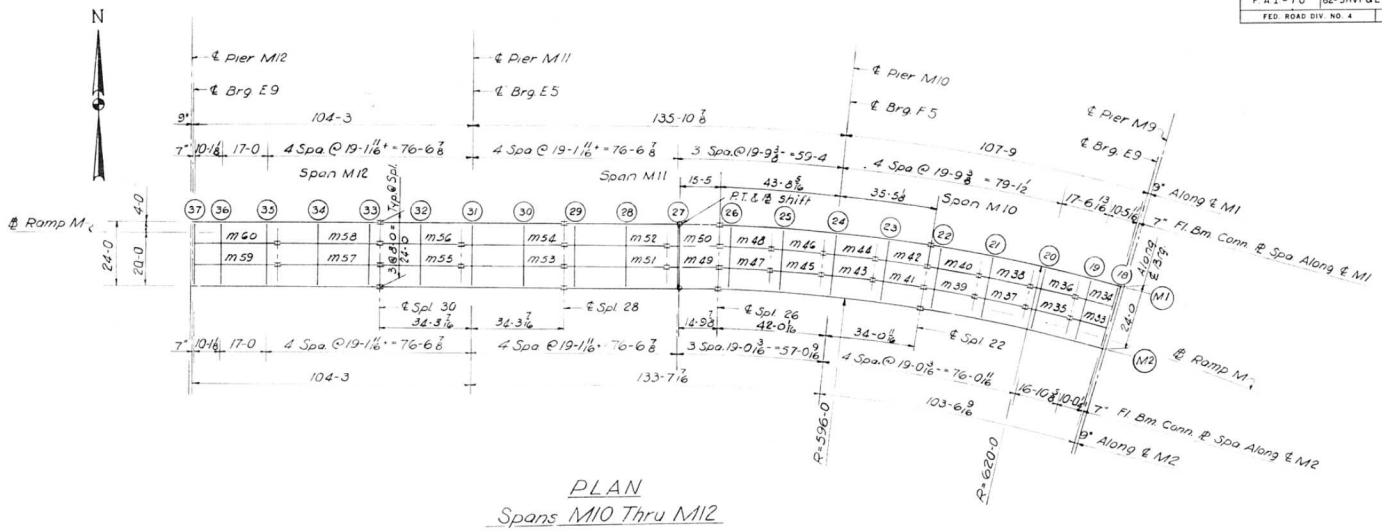
GIRDERS M1 AND M2
SPANS M7 THRU M9
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 273 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70	82-3HVF&E-1	ST. CLAIR	247	144
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans M10 Thru M12

ELEVATION TOP OF GIRDER WEB

		GIR. M2	GIR. M1	DIFF.
CL. BRG.		464.273	466.193	1.920
FLOOR BEAM	18	464.243	466.165	1.922
FLOOR BEAM	19	463.739	465.658	1.919
FLOOR BEAM	20	462.889	464.808	1.919
FLOOR BEAM	21	461.932	463.851	1.919
FLOOR BEAM	22	460.975	462.895	1.920
SPLICE	22	460.775	462.695	1.920
FLOOR BEAM	23	461.034	461.857	1.823
FLOOR BEAM	24	459.097	460.797	1.700
FLOOR BEAM	25	458.160	459.738	1.578
FLOOR BEAM	26	457.224	458.678	1.454
SPLICE	26	457.028	458.457	1.429
FLOOR BEAM	27	456.299	457.556	1.257
FLOOR BEAM	28	455.371	456.453	1.082
FLOOR BEAM	29	454.444	455.350	.906
SPLICE	28	454.250	455.120	.870
FLOOR BEAM	30	453.556	454.280	.724
FLOOR BEAM	31	452.678	453.218	.540
FLOOR BEAM	32	451.800	452.156	.356
SPLICE	30	451.105	451.316	.210
FLOOR BEAM	33	450.958	451.130	.172
FLOOR BEAM	34	450.251	450.238	.012
FLOOR BEAM	35	449.544	449.347	.197
FLOOR BEAM	36	448.916	448.555	.361
FLOOR BEAM	37	448.543	448.085	.458
CL. BRG.		448.582	448.058	.464

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	447,000

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 7530 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS M10 THRU M12
POPLAR STREET BRIDGE APPROACHES
RAMP "M"
STATION
F.A.I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS
SHEET 27 of 52

DESIGNED BY
DRAWN BY JK
CHECKED BY
APPROVED BY

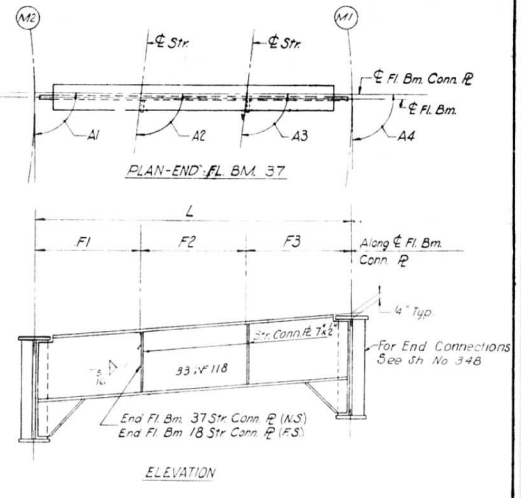
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVF & E-1	ST. CLAIR	247	145
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

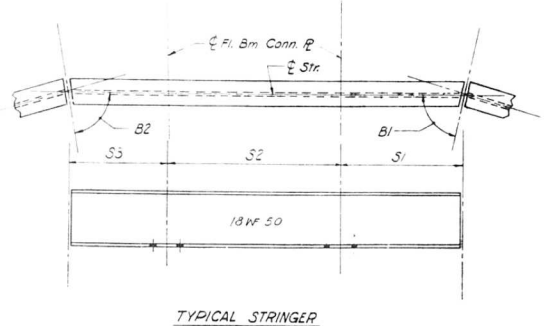
STRINGER DIMENSIONS

STR	L	S1	S2	S3	B1	B2
33	14 2 3/8		10 2 1/16	6 9/16	89.12.00	89.19.36
34	14 4 7/8		10 3 7/8	4 15/16	89.12.03	89.19.33
35	17 1 3/8	13 1 1/16		4 5/16	89.11.18	89.11.18
36	17 4 1/16	13 3 1/8		4 15/16	89.11.18	89.11.18
37	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
38	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
39	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
40	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
41	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
42	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
43	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
44	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
45	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
46	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
47	19 3 1/4	15 2 15/16		4 5/16	89.05.10	89.05.10
48	19 6 5/16	15 5 5/16		4 15/16	89.05.10	89.05.10
49	19 2 7/8	15 2 7/8		4	89.07.53	89.26.38
50	19 5 5/16	15 5 5/16		4	89.07.58	89.26.32
51	38 3 7/16	15 1 11/16	19 1 11/16	4	90.00.00	90.00.00
52	38 3 7/16	15 1 11/16	19 1 11/16	4	90.00.00	90.00.00
53	38 3 7/16	15 1 11/16	19 1 11/16	4	90.00.00	90.00.00
54	38 3 7/16	15 1 11/16	19 1 11/16	4	90.00.00	90.00.00
55	30 3 7/16	15 1 11/16		15 1 11/16	90.00.00	90.00.00
56	30 3 7/16	15 1 11/16		15 1 11/16	90.00.00	90.00.00
57	38 3 7/16	4	19 1 11/16	15 1 11/16	90.00.00	90.00.00
58	38 3 7/16	4	19 1 11/16	15 1 11/16	90.00.00	90.00.00
59	31 1 1/8	4	17	10 1 1/8	90.00.00	90.00.00
60	31 1 1/8	4	7	10 1 1/8	90.00.00	90.00.00

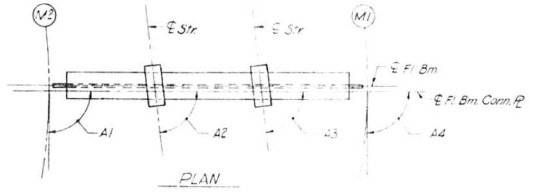
FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
18	24	8	8	8	89.52.18	89.12.00	89.12.03	89.52.36
19	24	7 11 9/16	8	8 7/16	90.00.00	90.17.29	90.17.32	90.00.00
20	24	7 11 1/2	8	8 1/2	90.00.00	90.25.47	90.25.47	90.00.00
21	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
22	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
23	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
24	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
25	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
26	24	7 11 3/8	8	8 5/8	90.00.00	90.31.55	90.31.55	90.00.00
27	24	7 11 9/16	8	8 7/16	90.00.00	90.33.22	90.33.28	90.00.00
28	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
29	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
30	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
31	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
32	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
33	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
34	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
35	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
36	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
37	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00

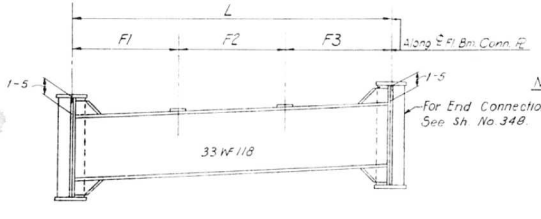




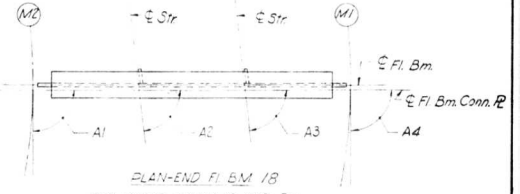
TYPICAL STRINGER



PLAN



ELEVATION
INTERIOR FLOOR BEAM 19 - 36
LOOKING TOWARDS INCREASING STATION



PLAN-END FL BM. 18
END FLOOR BEAM 18 AND 37
LOOKING TOWARDS INCREASING STATION

NOTES:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "6".

All dimensions are in the horizontal plane.

For Connection Plate Det. Shf. No. 348.

DESIGNED BY K. M. C.
DRAWN BY J.K.
CHECKED BY K.
APPROVED BY K. M.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS M10 THRU M12
POPLAR STREET BRIDGE APPROACHES
RAMP "M"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 275 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	146
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 19	T1	T2	T3	T4
STR.				
33	2 1/8	1 1/2	1	3/8
34	2 1/16	1 1/2	1	7/16

FLOOR BEAM 20	T1	T2	T3	T4
STR.				
35	2 1/8	1 1/2	1	3/8
36	2 1/16	1 1/2	1	7/16

FLOOR BEAM 21	T1	T2	T3	T4
STR.				
37	2 1/8	1 1/2	1	3/8
38	2 1/16	1 1/2	1	7/16

FLOOR BEAM 22	T1	T2	T3	T4
STR.				
39	2 1/8	1 1/2	1	3/8
40	2 1/16	1 1/2	1	7/16

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
41	2 1/16	1 1/2	1	7/16
42	2 1/8	1 9/16	15/16	3/8

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
43	2 1/16	1 9/16	15/16	7/16
44	2 1/16	1 9/16	15/16	7/16

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
45	2 1/16	1 9/16	15/16	7/16
46	2 1/16	1 9/16	15/16	7/16

FLOOR BEAM 26	T1	T2	T3	T4
STR.				
47	2 1/16	1 9/16	15/16	7/16
48	2 1/16	1 5/8	7/8	7/16

FLOOR BEAM 27	T1	T2	T3	T4
STR.				
49	2	1 5/8	7/8	1/2
50	2 1/16	1 5/8	7/8	7/16

FLOOR BEAM 28	T1	T2	T3	T4
STR.				
51	2	1 5/8	7/8	1/2
52	2	1 11/16	13/16	1/2

FLOOR BEAM 29	T1	T2	T3	T4
STR.				
51	1 15/16	1 11/16	13/16	9/16
52	2	1 11/16	13/16	/2

FLOOR BEAM 30	T1	T2	T3	T4
STR.				
53	1 7/8	1 11/16	13/16	5/8
54	1 15/16	1 11/16	13/16	9/16

FLOOR BEAM 31	T1	T2	T3	T4
STR.				
53	1 7/8	1 11/16	13/16	5/8
54	1 15/16	1 3/4	3/4	9/16

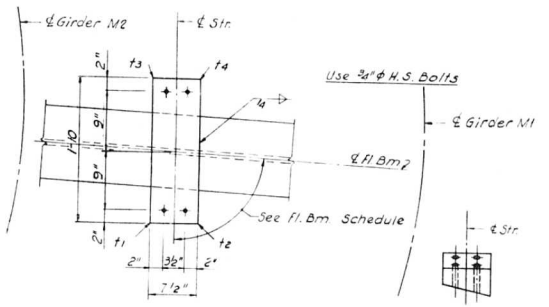
FLOOR BEAM 32	T1	T2	T3	T4
STR.				
55	1 7/8	1 3/4	3/4	5/8
56	1 7/8	1 3/4	3/4	5/8

FLOOR BEAM 33	T1	T2	T3	T4
STR.				
57	1 11/16	1 11/16	13/16	13/16
58	1 3/4	1 11/16	13/16	3/4

FLOOR BEAM 34	T1	T2	T3	T4
STR.				
57	1 11/16	1 11/16	13/16	13/16
58	1 3/4	1 3/4	3/4	3/4

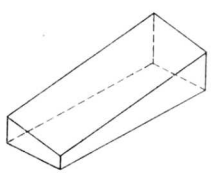
FLOOR BEAM 35	T1	T2	T3	T4
STR.				
59	1 11/16	1 3/4	3/4	13/16
60	1 11/16	1 7/8	3/4	13/16

FLOOR BEAM 36	T1	T2	T3	T4
STR.				
59	1 5/8	1 3/4	3/4	7/8
60	1 11/16	1 11/16	11/16	13/16

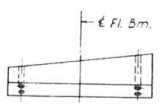


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS M10 THRU M12

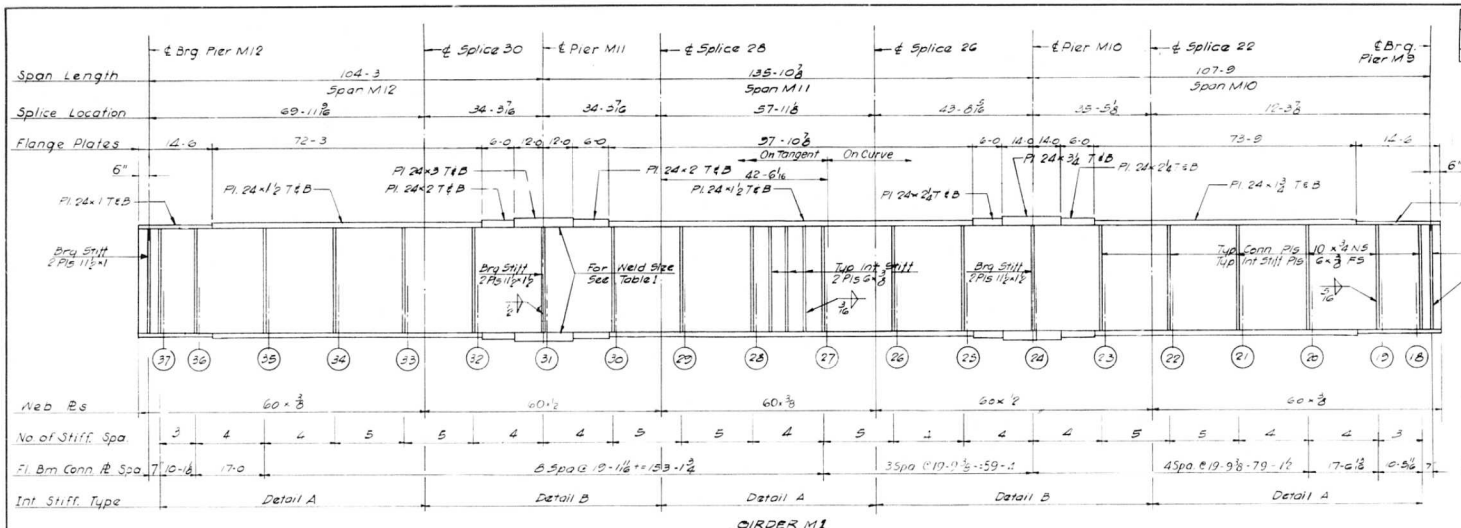
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F.A.I. RT 70 ST CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

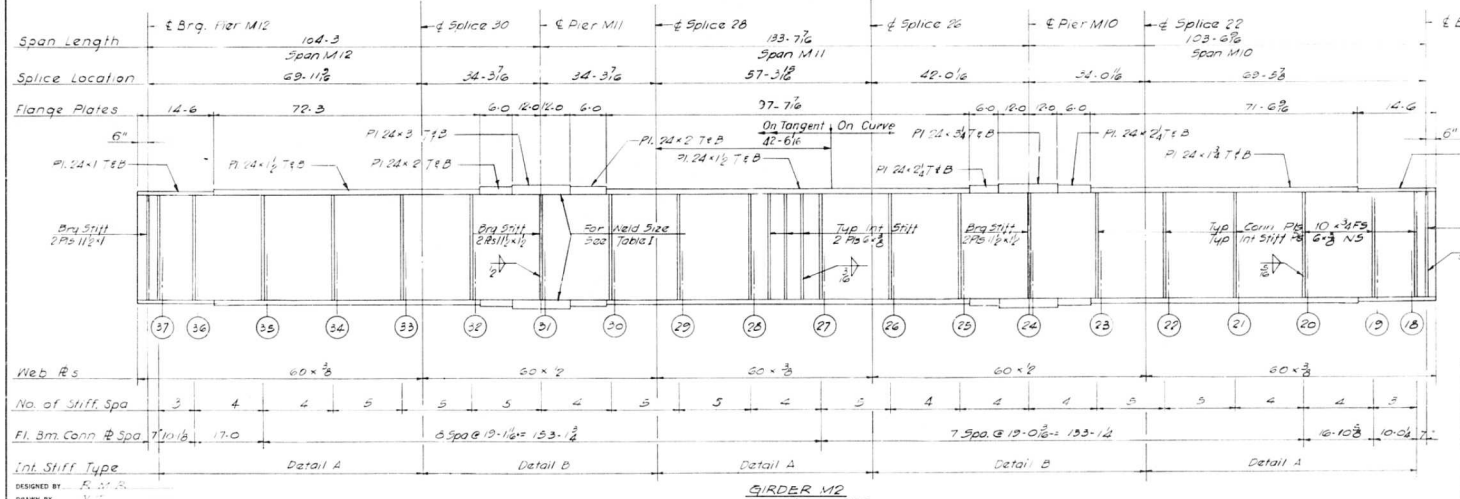
SHEET
276 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	147
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER M1
Spans M10 thru M12

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 274
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350



GIRDER M2
Spans M10 thru M12

DESIGNED BY R. M. R.
DRAWN BY N. T.
CHECKED BY A. W.
APPROVED BY R. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

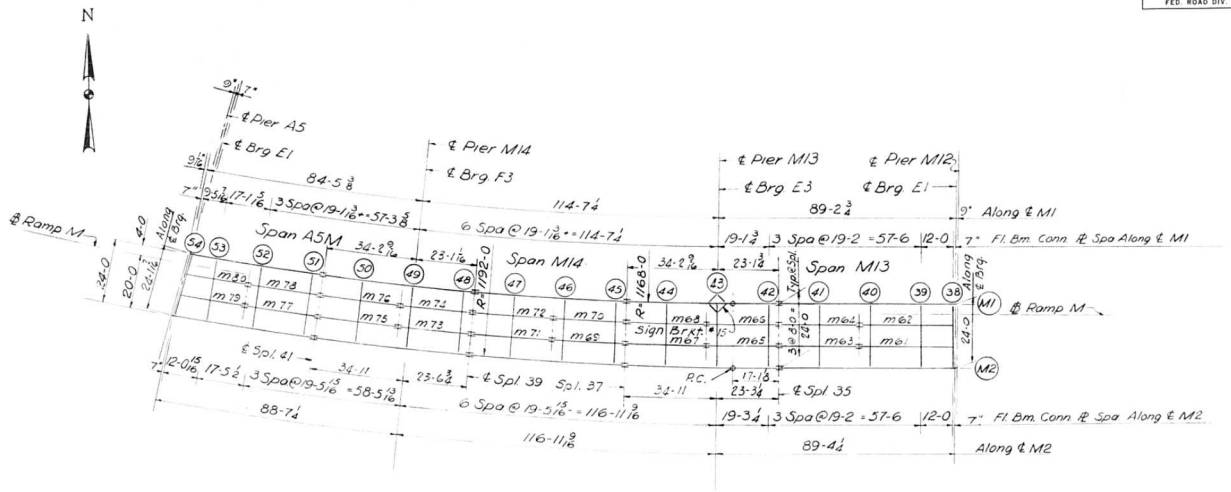
GIRDERS M1 AND M2
SPANS M10 THRU M12
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 277 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70	82-3HVF&E-1	ST. CLAIR	247	148
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans M13 Thru A5M

ELEVATION TOP OF GIRDER WEB

		GIR. M2	GIR. M1	DIFF.
CL. BRG.		448.474	447.995	.478
FLOOR BEAM	38	448.453	447.967	.486
FLOOR BEAM	39	448.021	447.386	.635
FLOOR BEAM	40	447.333	446.458	.875
SPLICE	35	446.644	445.529	1.115
FLOOR BEAM	42	446.567	445.412	1.155
FLOOR BEAM	43	446.197	444.849	1.348
FLOOR BEAM	44	445.723	444.287	1.536
SPLICE	37	445.526	443.843	1.683
FLOOR BEAM	45	445.475	443.775	1.700
FLOOR BEAM	46	445.231	443.452	1.779
FLOOR BEAM	47	444.986	443.129	1.857
SPLICE	39	444.793	442.873	1.920
FLOOR BEAM	48	444.769	442.849	1.920
FLOOR BEAM	49	444.658	442.738	1.920
FLOOR BEAM	50	444.547	442.627	1.920
SPLICE	41	444.459	442.539	1.920
FLOOR BEAM	51	444.465	442.545	1.920
FLOOR BEAM	52	444.494	442.571	1.923
FLOOR BEAM	53	444.521	442.594	1.927
FLOOR BEAM	54	444.539	442.607	1.932
CL. BRG.		444.540	442.608	1.932

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183
For Sign Brkt Detail, See Sheet No. 360

BILL OF MATERIAL		
*Structural Steel	Lbs.	312,200

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6320 Lbs

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS M13, M14, & A5-M
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F.A.I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 278 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
DATE

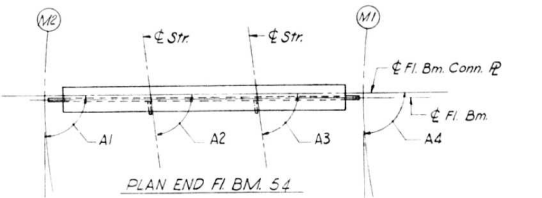
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVF&E-4	ST. CLAIR	247	48
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

STRINGER DIMENSIONS

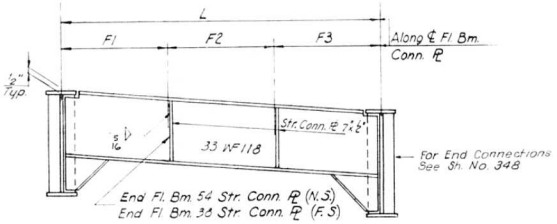
STR	L	S1	S2	S3	B1	B2
61	35 2	12	19 2	4	90.00.00	90.00.00
62	35 2	12	19 2	4	90.00.00	90.00.00
63	30 4	15 2		15 2	90.00.00	90.00.00
64	30 4	15 2		15 2	90.00.00	90.00.00
65	27 3 1/4	4	19 2 3/4	4 1/2	90.05.31	90.24.02
66	27 2 7/16	4	19 2 1/4	4 3/16	90.05.29	90.24.03
67	30 7 11/16	15 3 7/8		15 3 7/8	90.44.29	90.44.29
68	30 5 1/4	15 2 5/8		15 2 5/8	90.44.29	90.44.29
69	27 5 5/16	4 1/2	19 4 3/8	4 1/2	90.39.51	90.39.51
70	27 3 1/8	4 3/16	19 2 3/4	4 3/16	90.39.51	90.39.51
71	30 7 11/16	15 3 7/8		15 3 7/8	90.44.29	90.44.29
72	30 5 1/4	15 2 5/8		15 2 5/8	90.44.29	90.44.29
73	27 5 5/16	4 1/2	19 4 3/8	4 1/2	90.39.51	90.39.51
74	27 3 1/8	4 3/16	19 2 3/4	4 3/16	90.39.51	90.39.51
75	30 7 11/16	15 3 7/8		15 3 7/8	90.44.29	90.44.29
76	30 5 1/4	15 2 5/8		15 2 5/8	90.44.29	90.44.29
77	27 5 5/16	4 1/2	19 4 3/8	4 1/2	90.39.51	90.39.51
78	27 3 1/8	4 3/16	19 2 3/4	4 3/16	90.39.51	90.39.51
79	24 6 1/16	13 3 5/8	11 2 7/16		90.35.39	96.18.08
80	23 6 1/2	13 2 9/16	10 3 15/16		90.34.29	96.19.16

FLOOR BEAM DIMENSIONS

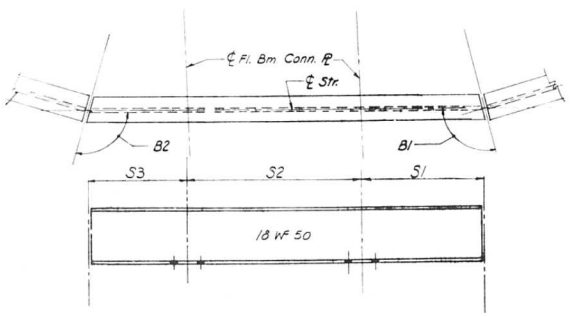
FL BM	L	F1	F2	F3	A1	A2	A3	A4
38	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
39	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
40	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
41	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
42	24	8 1/16	8	7 11 15/16	90.00.00	90.05.31	90.05.29	90.00.00
43	24	8 1/4	8	7 11 3/4	90.00.00	89.47.42	89.47.41	90.00.00
44	24	8 1 3/16	8	7 10 13/16	90.00.00	90.00.00	90.00.00	90.00.00
45	24	8 1/2	8	7 11 1/2	90.00.00	90.28.07	90.28.07	90.00.00
46	24	8 1/2	8	7 11 1/2	90.00.00	89.31.53	89.31.53	90.00.00
47	24	8 1 3/16	8	7 10 13/16	90.00.00	90.00.00	90.00.00	90.00.00
48	24	8 1/2	8	7 11 1/2	90.00.00	90.28.07	90.28.07	90.00.00
49	24	8 1/2	8	7 11 1/2	90.00.00	89.31.53	89.31.53	90.00.00
50	24	8 1 3/16	8	7 10 13/16	90.00.00	90.00.00	90.00.00	90.00.00
51	24	8 1/2	8	7 11 1/2	90.00.00	90.28.07	90.28.07	90.00.00
52	24	8 1/2	8	7 11 1/2	90.00.00	89.31.53	89.31.53	90.00.00
53	24	8 3/4	7 11 15/16	7 11 5/16	90.00.00	89.57.02	89.55.52	90.00.00
54	24 1 7/16	8 1/2	8 1/2	8 1/2	84.19.40	83.41.52	83.40.42	84.12.39



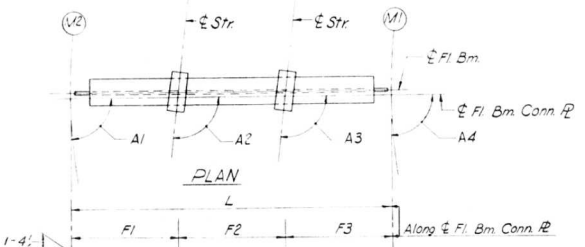
PLAN END FL BM. 54



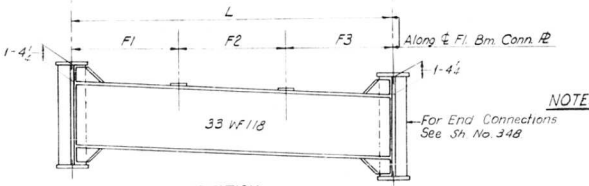
ELEVATION



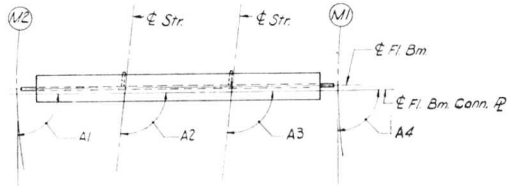
TYPICAL STRINGER



PLAN



ELEVATION
INTERIOR FLOOR BEAM 39 THRU 53
LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 38
END FLOOR BEAM 38 AND 54
LOOKING TOWARDS INCREASING STATION

NOTES:
Length L of Stringers and Fl. Bms. is correct as given in the Table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Det. see Sht. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS M13, M14, & A5M
POPLAR STREET BRIDGE APPROACHES
RAMP "M"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF,B,E-4

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 278 OF 526

ED BY
BY T.K.
ED BY
VED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA.I.-70	82-3HVF&E-1	ST. CLAIR	247	150
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 39	T1	T2	T3	T4
STR.				
61	1 5/16	1 9/16	7/16	11/16
62	1 3/8	1 9/16	7/16	5/8

FLOOR BEAM 40	T1	T2	T3	T4
STR.				
61	1 5/16	1 9/16	7/16	11/16
62	1 3/8	1 5/8	3/8	5/8

FLOOR BEAM 42	T1	T2	T3	T4
STR.				
65	1 1/16	1 7/16	9/16	15/16
66	1 1/8	1 7/16	9/16	7/8

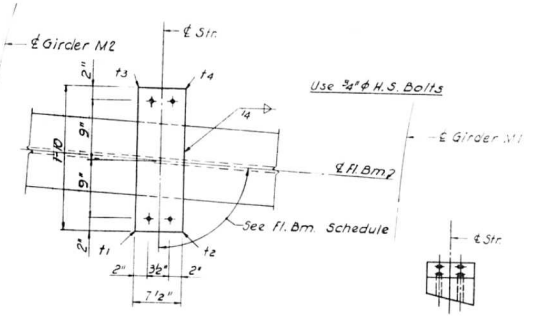
FLOOR BEAM 43	T1	T2	T3	T4
STR.				
65	1 1/16	1 7/16	9/16	15/16
66	1 1/16	1 1/2	1/2	15/16

FLOOR BEAM 44	T1	T2	T3	T4
STR.				
67	1	1 1/2	1/2	1
68	1 1/16	1 1/2	1/2	15/16

FLOOR BEAM 45 THRU 47	T1	T2	T3	T4
STR. 69 THRU 72	7/8	1 7/16	9/16	1 1/8

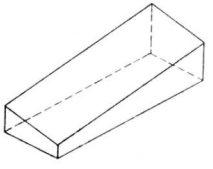
FLOOR BEAM 48 THRU 50	T1	T2	T3	T4
STR. 73 THRU 76	3/4	1 3/8	5/8	1 1/4

FLOOR BEAM 51 THRU 53	T1	T2	T3	T4
STR. 77 THRU 80	11/16	1 5/16	11/16	1 5/16

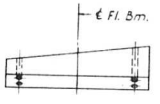


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS M13, M14, & A5-M

POPLAR STREET BRIDGE APPROACHES
RAMP "M"

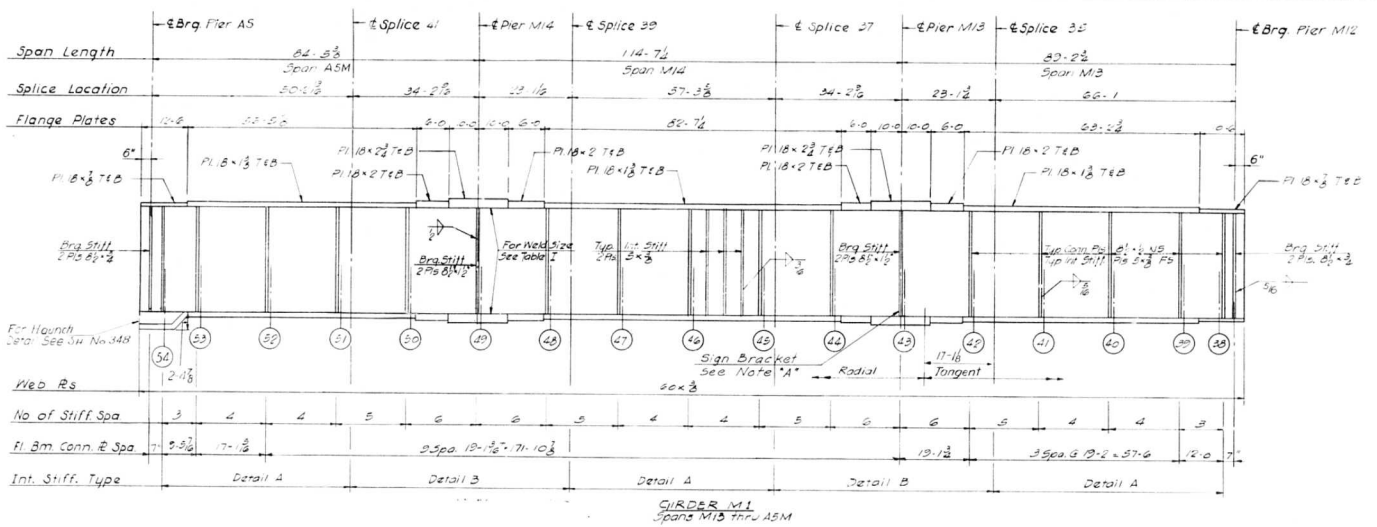
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

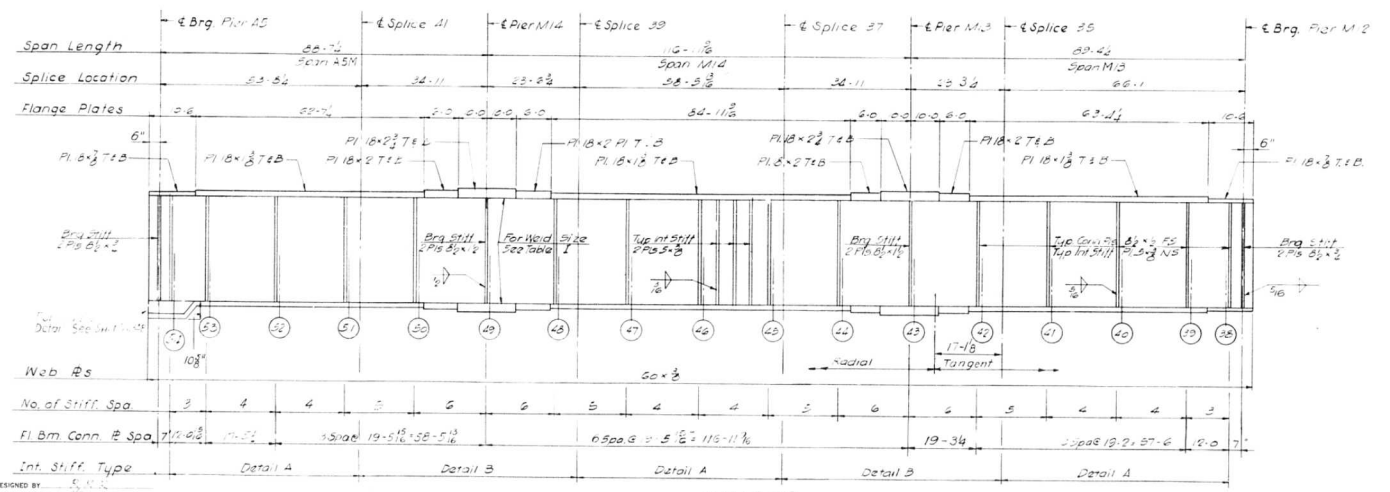
SHEET 280 of 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	151
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER M1
Spans M13 thru A5M



GIRDER M2
Spans M13 thru A5M

Note "A"
Intermediate Stiffeners should be moved if necessary to clear sign bracket Connection plates.

Notes
All Longitudinal Dimensions shown are given along ℄ of W.b. see Sheet No. 218
All Bearing Stiffeners and Connection Plates to be vertical
For Splice, Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350
For Sign Bracket Detail see Sheet No. 340

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS M1 AND M2
SPANS M13 THRU A5M
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

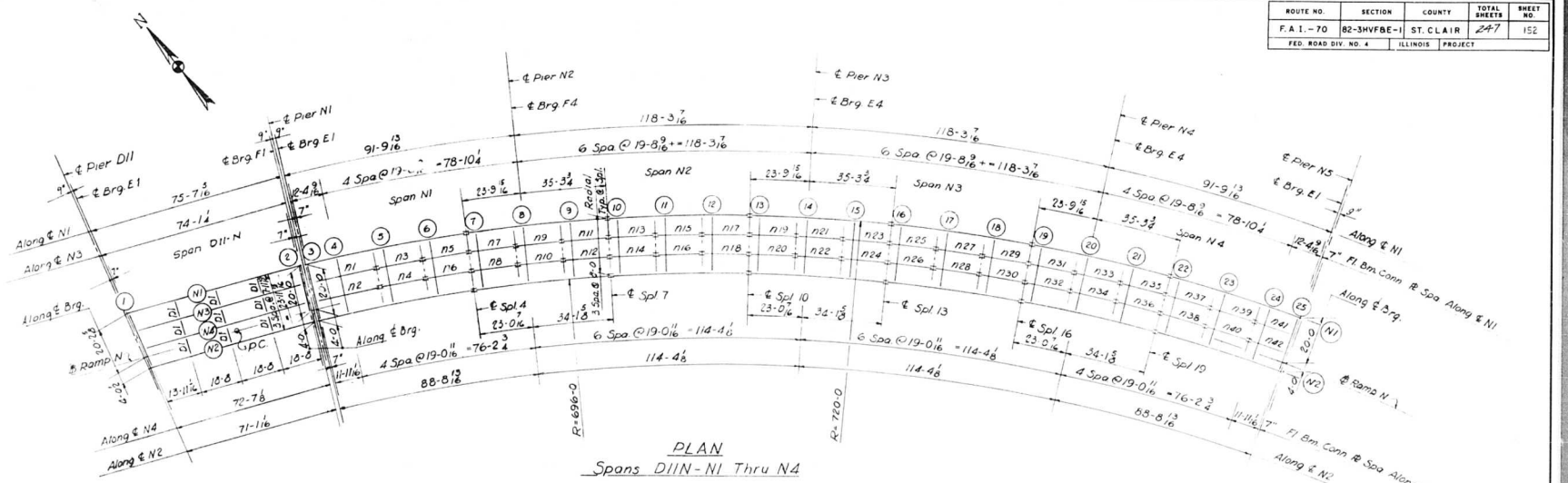
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 281 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	152
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

Spans D11N-N1 Thru N4

ELEVATION TOP FLANGE

		BM. N1	BM. N2	DIFF.
CL. BRG.		449.979	449.732	.247
FLOOR BEAM	1	449.984	449.732	.251
FLOOR BEAM	2	450.637	449.696	.941
CL. BRG.		450.642	449.696	.946

ELEVATION TOP OF GIRDER WEB

		GIR. N1	GIR. N2	DIFF.			GIR. N1	GIR. N2	DIFF
CL. BRG.		450.468	449.486	.982	FLOOR BEAM	15	450.506	448.586	1.920
FLOOR BEAM	3	450.453	449.486	.967	SPLICE	13	450.383	448.463	1.920
FLOOR BEAM	4	450.559	449.472	1.087	FLOOR BEAM	16	450.347	448.427	1.920
FLOOR BEAM	5	450.729	449.450	1.279	FLOOR BEAM	17	450.175	448.255	1.920
FLOOR BEAM	6	450.899	449.428	1.471	FLOOR BEAM	18	450.002	448.082	1.920
SPLICE	4	451.033	449.410	1.623	SPLICE	16	449.866	447.946	1.920
FLOOR BEAM	7	451.041	449.397	1.644	FLOOR BEAM	19	449.830	447.910	1.920
FLOOR BEAM	8	451.079	449.336	1.743	FLOOR BEAM	20	449.657	447.737	1.920
FLOOR BEAM	9	451.117	449.271	1.842	FLOOR BEAM	21	449.485	447.565	1.920
SPLICE	7	451.147	449.227	1.920	SPLICE	19	449.348	447.428	1.920
FLOOR BEAM	10	451.126	449.206	1.920	FLOOR BEAM	22	449.312	447.392	1.920
FLOOR BEAM	11	451.026	449.106	1.920	FLOOR BEAM	23	449.140	447.220	1.920
FLOOR BEAM	12	450.926	449.006	1.920	FLOOR BEAM	24	448.967	447.047	1.920
SPLICE	10	450.847	448.927	1.920	FLOOR BEAM	25	448.859	446.939	1.920
FLOOR BEAM	13	450.815	448.895	1.920	CL. BRG.		448.854	446.934	1.920
FLOOR BEAM	14	450.660	448.740	1.920					

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	544,005

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 11,800 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS D11N & N1 THRU N4

POPLAR STREET BRIDGE APPROACHES
RAMP "N"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 282 OF 526

DESIGNED BY F.A.
DRAWN BY J.K.
CHECKED BY A.
APPROVED BY

Rev. tr. Steel from 545,610# to 544,005# 6-3-66 N.R.F.

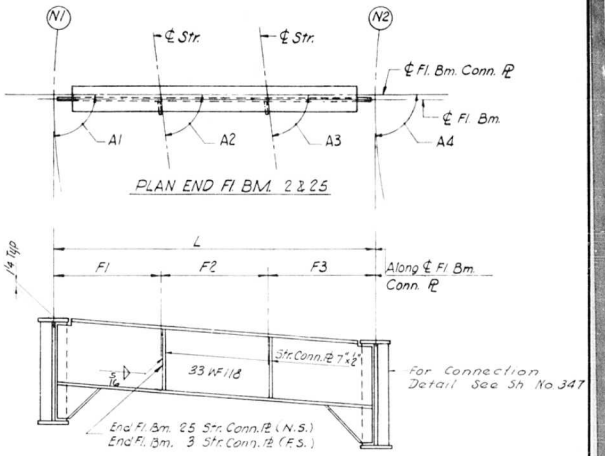
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	153
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

STR	L	S1	S2	B1	B2
1	27 7 13/16	12 2 3/4	15 5 1/8	91.13.12	91.06.46
2	27 3 15/16	12 7/8	15 3	91.13.14	91.06.44
3	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
4	19 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
5	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
6	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
7	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
8	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
9	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
10	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
11	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
12	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
13	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
14	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
15	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
16	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
17	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
18	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
19	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
20	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
21	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
22	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
23	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
24	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
25	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
26	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
27	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
28	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
29	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
30	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
31	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
32	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
33	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
34	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
35	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
36	19 3 5/16	4 1/4	15 3	90.47.04	90.47.04
37	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
38	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
39	19 5 15/16	4 13/16	15 5 1/8	90.47.04	90.47.04
40	19 3 5/16	4 1/4	15 3 1/16	90.47.04	90.47.04
41	16 3 9/16	4 13/16	12 2 3/4	90.39.21	90.45.47
42	16 3/16	4 1/4	12 7/8	90.39.18	90.45.49

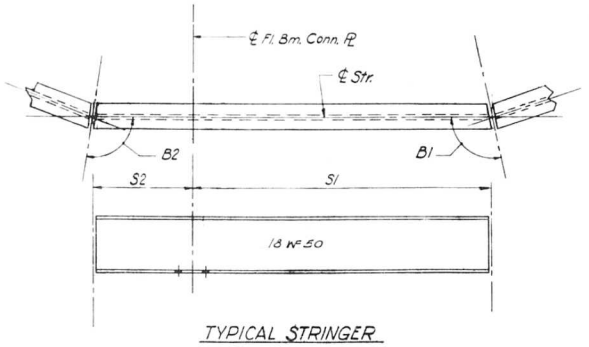
FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24 3 3/16	8 1 1/16	8 1 1/16	8 1 1/16	98.39.09	98.39.09	98.39.09	98.39.09
2	24	8	8	8	87.55.08	87.55.08	87.55.08	87.55.08
3	24	8	8	8	90.08.22	91.13.12	91.13.14	90.08.35
4	24	8 1 9/16	8	7 10 7/16	89.00.00	90.07.43	90.07.45	90.00.00
5	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
6	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
7	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
8	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
9	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
10	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
11	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
12	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
13	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
14	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
15	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
16	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
17	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
18	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
19	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
20	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
21	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
22	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
23	24	8 1/2	8	7 11 1/2	90.00.00	90.27.25	90.27.25	90.00.00
24	24	8 7/16	8	7 11 9/16	90.00.00	90.19.42	90.19.40	90.00.00
25	24	8	8	8	89.53.38	89.14.13	89.14.11	89.53.25

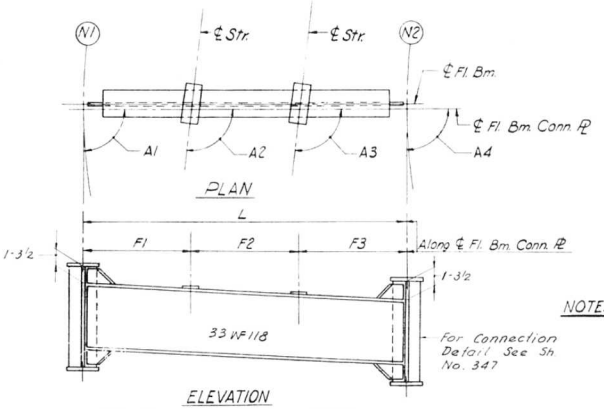


ELEVATION END FL. BMS. 3 & 25

Note: For Elevation of End Fl. Bms. 1 & 2 see Sheet No. 285



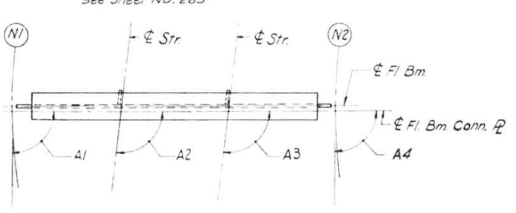
TYPICAL STRINGER



ELEVATION

INTERIOR FLOOR BEAM 4 THRU 24

LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 1 & 3

END FLOOR BEAM 1-2-3 & 25

LOOKING TOWARDS INCREASING STATION

NOTES:

Length L of Stringers and Fl. Bms. is correct as given in the Table except the increment lengths are given to the nearest 1/16".

All dimensions are in the horizontal plane.

For Connection Plate Det. See Sht. No. 348.

DESIGNED BY

DRAWN BY

CHECKED BY

APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS N1 THRU N4, D11-N
POPLAR STREET BRIDGE APPROACHES
RAMP "N"

F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 283 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	54
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 4	T1	T2	T3	T4
STR.				
1	1/2	7/8	5/8	1
2	9/16	7/8	5/8	15/16

FLOOR BEAM 5	T1	T2	T3	T4
STR.				
3	1/2	7/8	5/8	1
4	1/2	15/16	9/16	1

FLOOR BEAM 6	T1	T2	T3	T4
STR.				
5	7/16	15/16	9/16	1 1/16
6	1/2	15/16	9/16	1

FLOOR BEAM 7 THRU 9	T1	T2	T3	T4
STR. 7 THRU 12	1/2	1	1/2	1

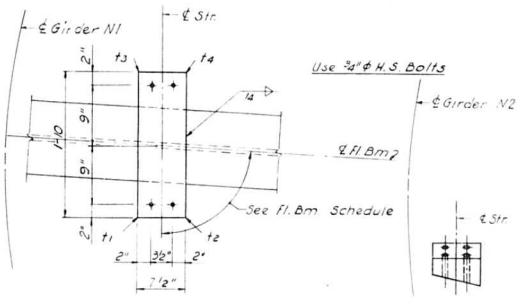
FLOOR BEAM 10 THRU 12	T1	T2	T3	T4
STR. 13 THRU 18	1/2	1 1/8	3/8	1

FLOOR BEAM 13 THRU 15	T1	T2	T3	T4
STR. 19 THRU 24	9/16	1 1/8	3/8	15/16

FLOOR BEAM 16 THRU 18	T1	T2	T3	T4
STR. 25 THRU 30	9/16	1 1/8	3/8	15/16

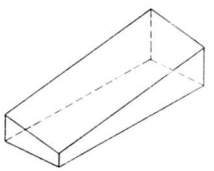
FLOOR BEAM 19 THRU 21	T1	T2	T3	T4
STR. 31 THRU 36	9/16	1 1/8	3/8	15/16

FLOOR BEAM 22 THRU 24	T1	T2	T3	T4
STR. 37 THRU 42	9/16	1 1/8	3/8	15/16

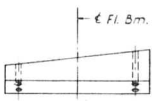


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS N1 THRU N4

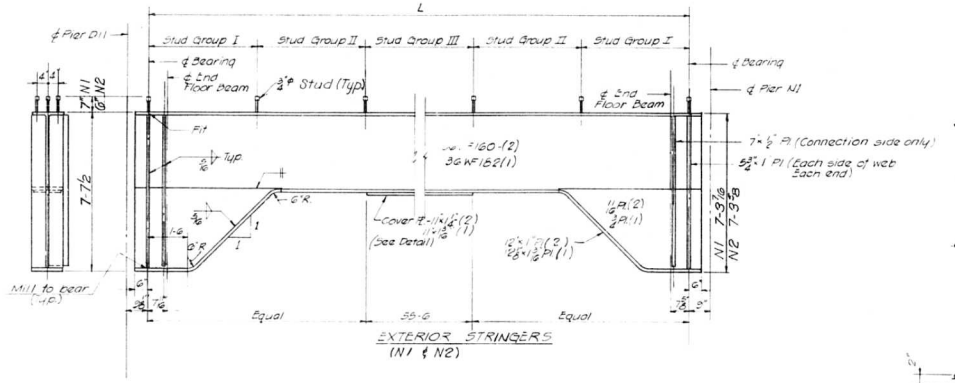
POPLAR STREET BRIDGE APPROACHES
RAMP "N"

FAI RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

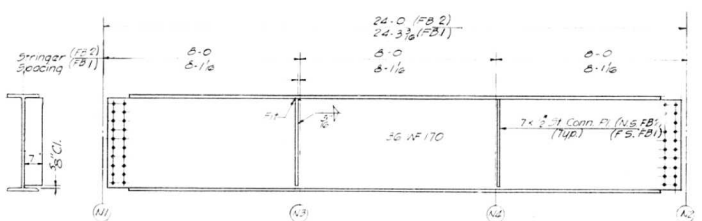
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 286 OF 526

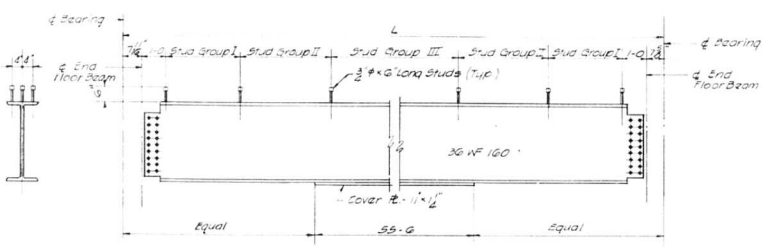
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I – 70	82-3HVF & E-1	ST. CLAIR	247	155
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



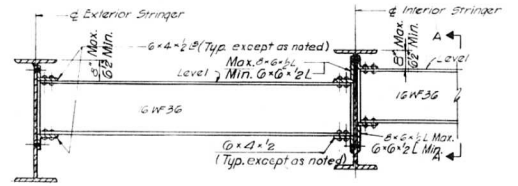
EXTERIOR STRINGERS
(N1 & N2)



END FLOORBEAM
(FB1 & FB2)

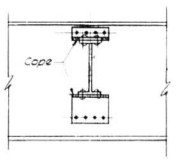


INTERIOR STRINGERS
(N3 & N4)

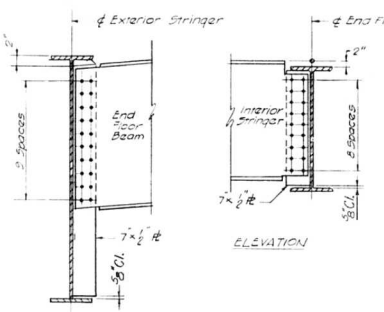


Typ. Connection for Interior Diaphragms-D1

DIAPHRAGMS DETAILS

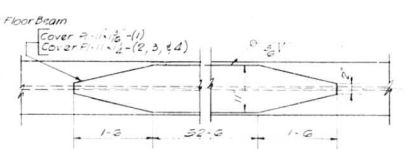


SECTION A-A



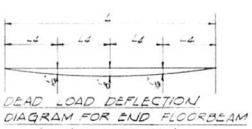
ELEVATION

ELEVATION

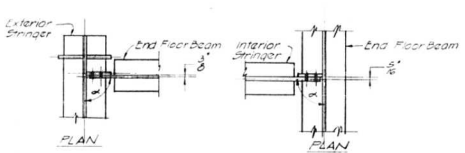


COVER PLATE DETAIL

NOTE: Clip all stiffeners and Connection Plates 1"x1" at corners to clear welding of flange to web and to clear beam fillets.



DEAD LOAD DEFLECTION DIAGRAM FOR END FLOORBEAM
(Wt of Concrete Only)



END FLOORBEAM TO EXTERIOR STRINGERS CONNECTION

INTERIOR STRINGER TO END FLOORBEAM CONNECTION

NOTE: For Angle ∝ see Floor Beam Schedule Sheet No. 283

STRINGER	LENGTH	SHEAR CONN. SPACING GROUP I	GROUP II	GROUP III
N1	75-7⅞"	37@4½"	28@6½"	23@9½"±
N3	74-1¼	36@4½"	28@6½"	19@9½"±
N4	72-7⅛"	36@4½"	28@6½"	17@9½"±
N2	71-1⅛"	37@4½"	28@6½"	16@9½"±

NOTES:

For Framing Plan see Sheet No. 282

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN DIIN

POPLAR STREET BRIDGE APPROACHES
RAMP "N"

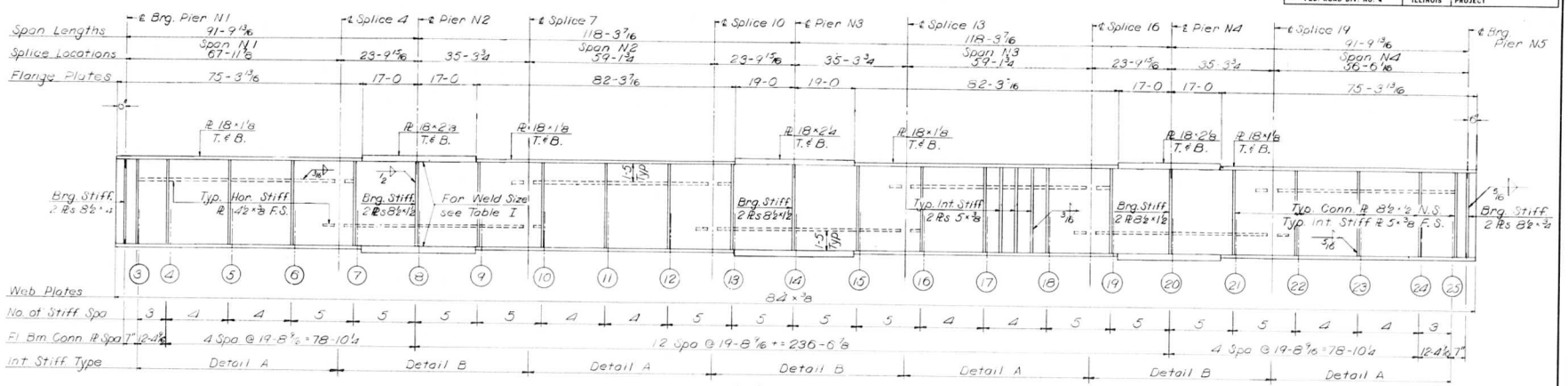
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

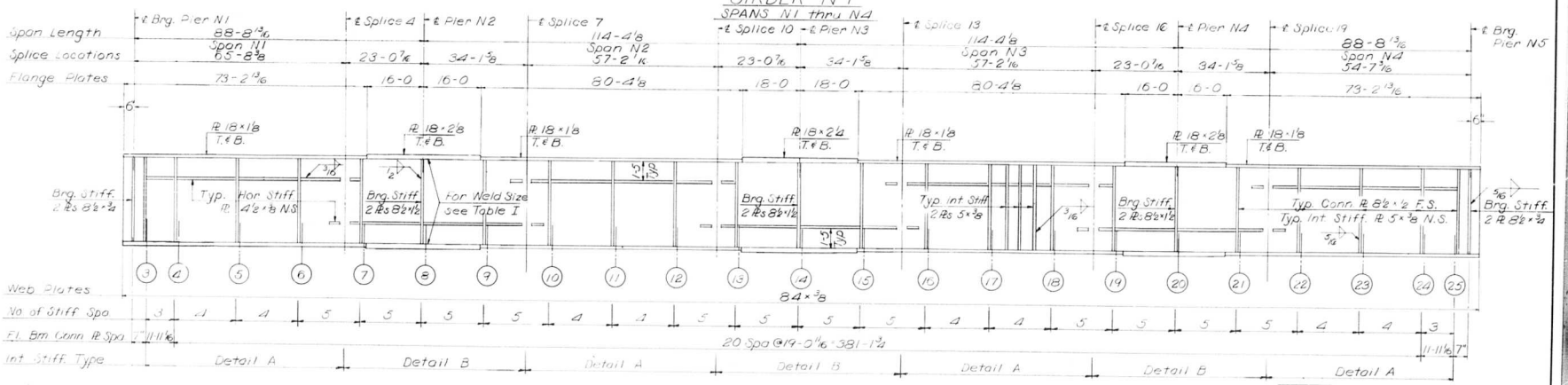
SHEET 285 OF 326

DESIGNED BY HJ
DRAWN BY
CHECKED BY LW
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	156
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER N1
SPANS N1 thru N4



GIRDER N2
SPANS N1 thru N4

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 282

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I. See Sh. Nos: 348, 349, 350.

DESIGNED BY R.M.S.
DRAWN BY D.C.H.
CHECKED BY A.T.
APPROVED BY R.A.

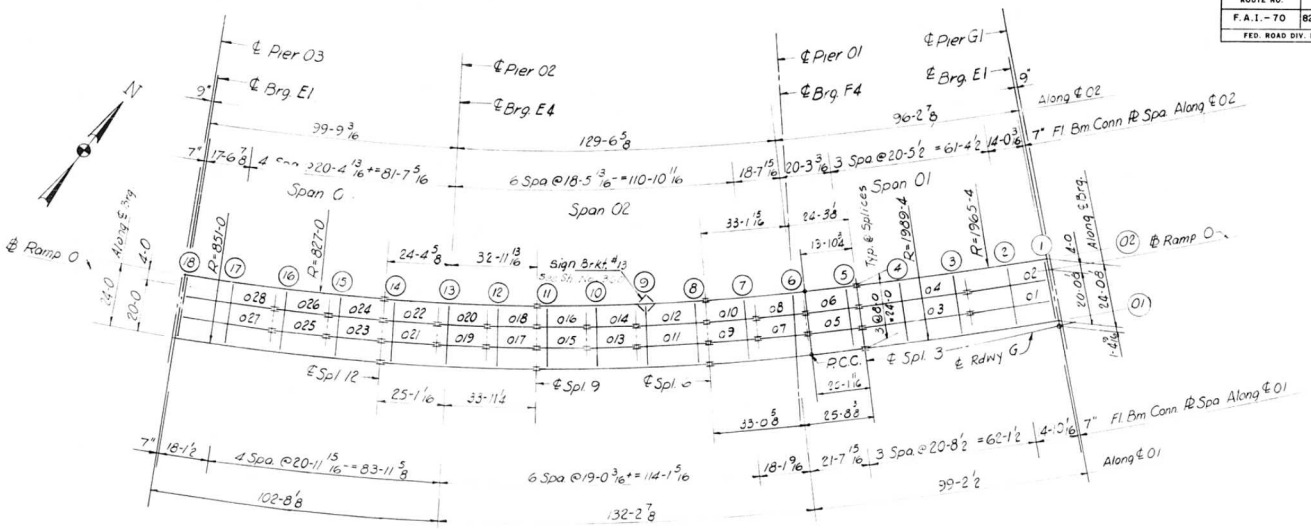
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS N1 AND N2
SPANS N1 THRU N4
POPLAR STREET BRIDGE APPROACHES
RAMP "N"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 284 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	157
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans 01 Thru 03

ELEVATION TOP OF GIRDER WEB

		GIR. 01	GIR. 02	DIFF.
CL. BRG.		459.733	457.812	1.921
FLOOR BEAM	1	459.734	457.814	1.920
FLOOR BEAM	2	459.777	457.854	1.923
FLOOR BEAM	3	459.836	457.913	1.923
FLOOR BEAM	4	459.895	457.973	1.922
SPLICE	3	459.943	458.020	1.923
FLOOR BEAM	5	459.953	458.031	1.922
FLOOR BEAM	6	460.009	458.085	1.924
FLOOR BEAM	7	460.055	458.134	1.921
SPLICE	6	460.093	458.173	1.920
FLOOR BEAM	8	460.102	458.182	1.920
FLOOR BEAM	9	460.145	458.225	1.920
FLOOR BEAM	10	460.188	458.268	1.920
FLOOR BEAM	11	460.231	458.311	1.920
SPLICE	9	460.240	458.320	1.920
FLOOR BEAM	12	460.203	458.283	1.920
FLOOR BEAM	13	460.157	458.237	1.920
FLOOR BEAM	14	460.106	458.186	1.920
SPLICE	12	460.096	458.176	1.920
FLOOR BEAM	15	459.934	458.014	1.920
FLOOR BEAM	16	459.733	457.812	1.921
FLOOR BEAM	17	459.531	457.611	1.920
FLOOR BEAM	18	459.357	457.438	1.919
CL. BRG.		459.352	457.432	1.920

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	403,410

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS 01 THRU 03
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 267 of 526

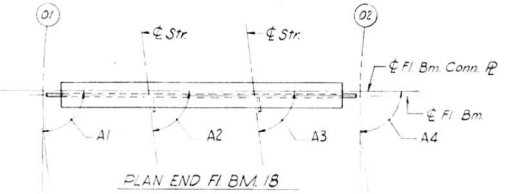
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	249	158
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

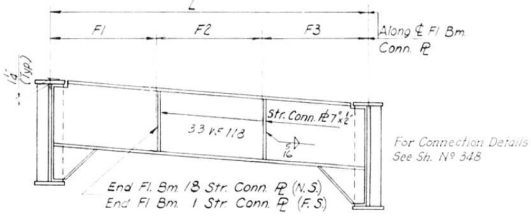
STR	L	S1	S2	S3	B1	B2
1	31 1 15/16		14 6 3/4	16 7 3/16	91.59.59	90.27.02
2	30 9 7/8		14 3 7/16	16 6 3/8	92.00.10	90.26.51
3	41 3	4 5/16	20 7 1/2	16 7 3/16	90.35.47	90.35.47
4	41 1	4 1/8	20 6 1/2	16 6 3/8	90.35.47	90.35.47
5	20 7 9/16	4 5/16		16 7 1/4	90.17.55	90.19.13
6	20 6 1/2	4 1/8		16 6 7/16	90.17.55	90.19.13
7	18 10 1/16	4 7 1/16		14 3	90.38.25	90.38.25
8	18 7 15/16	4 2 5/16		14 5 9/16	90.38.25	90.38.25
9	18 10 1/16	4 11/16		14 9 3/8	90.38.25	90.38.25
10	18 7 15/16	4 1/4		14 7 11/16	90.38.25	90.38.25
11	26 11 7/16	4 11/16	18 10 1/16	4 11/16	90.54.58	90.54.58
12	26 8 3/8	4 1/4	18 7 15/16	4 1/4	90.54.58	90.54.58
13	18 10 1/16	14 9 3/8		4 11/16	90.38.25	90.38.25
14	18 7 15/16	14 7 11/16		4 1/4	90.38.25	90.38.25
15	18 10 1/16	14 9 3/8		4 11/16	90.38.25	90.38.25
16	18 7 15/16	14 7 11/16		4 1/4	90.38.25	90.38.25
17	18 10 1/16	14 9 3/8		4 11/16	90.38.25	90.38.25
18	18 7 15/16	14 7 11/16		4 1/4	90.38.25	90.38.25
19	18 10 1/16	14 9 3/8		4 11/16	90.38.25	90.38.25
20	18 7 15/16	14 7 11/16		4 1/4	90.38.25	90.38.25
21	20 9 9/16	16 8 7/8		4 11/16	90.42.24	90.42.24
22	20 7 3/16	16 6 15/16		4 1/4	90.42.24	90.42.24
23	20 9 9/16	16 8 7/8		4 11/16	90.42.24	90.42.24
24	20 7 3/16	16 6 15/16		4 1/4	90.42.24	90.42.24
25	20 9 9/16	16 8 7/8		4 11/16	90.42.24	90.42.24
26	20 7 3/16	16 6 15/16		4 1/4	90.42.24	90.42.24
27	34 8 1/8	16 8 7/8	17 11 1/4		91.10.43	91.16.09
28	34 4	16 6 15/16	17 9 1/16		91.10.41	91.16.10

FLOOR BEAM DIMENSIONS

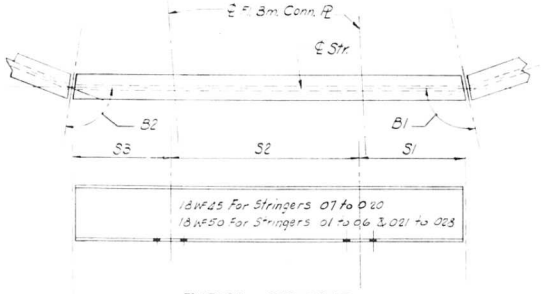
FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24 1/2	8 1/16	8 1/16	9 1/16	91.32.34	91.59.59	92.00.10	91.33.42
2	24	8 3/4	8	7 11 5/16	90.00.00	90.01.46	90.01.57	90.00.00
3	24	8 7/16	8	7 11 9/16	90.00.00	90.28.48	90.28.48	90.00.00
4	24	8 1 1/4	8	7 10 3/4	90.00.00	89.53.01	89.53.01	90.00.00
5	24	8 3/16	8	7 11 13/16	90.00.00	90.10.56	90.10.56	90.00.00
6	24 1/4	8 9/16	8 1/16	7 11 11/16	87.31.19	87.49.36	87.49.36	87.27.00
7	24	8 7/16	8	7 11 9/16	90.00.00	90.21.52	90.21.52	90.00.00
8	24	8 11/16	8	7 11 3/8	90.00.00	90.38.25	90.38.25	90.00.00
9	24	8 11/16	8	7 11 3/8	90.00.00	89.21.35	89.21.35	90.00.00
10	24	8 7/16	8	7 11 9/16	90.00.00	89.38.08	89.38.08	90.00.00
11	24	8 7/16	8	7 11 9/16	90.00.00	89.38.08	89.38.08	90.00.00
12	24	8 7/16	8	7 11 9/16	90.00.00	89.38.08	89.38.08	90.00.00
13	24	8 7/16	8	7 11 9/16	90.00.00	89.38.08	89.38.08	90.00.00
14	24	8 1/2	8	7 11 1/2	90.00.00	89.34.09	89.34.09	90.00.00
15	24	8 1/2	8	7 11 1/2	90.00.00	89.34.09	89.34.09	90.00.00
16	24	8 1/2	8	7 11 1/2	90.00.00	89.34.09	89.34.09	90.00.00
17	24	8 2 1/8	8	7 9 7/8	90.00.00	90.02.27	90.02.26	90.00.00
18	24	8	8	8	89.54.37	88.43.51	88.43.50	89.54.27



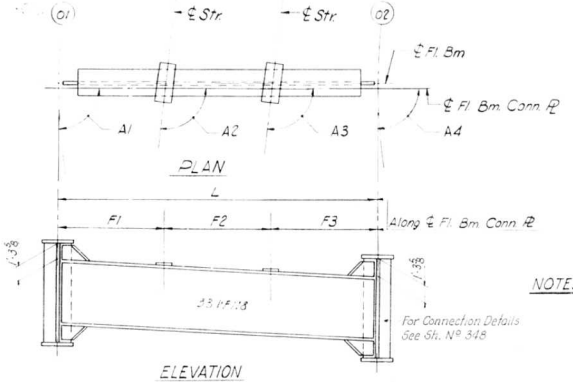
PLAN END FL BM. 18



ELEVATION

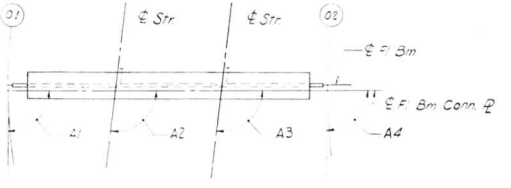


TYPICAL STRINGER



PLAN

ELEVATION
INTERIOR FLOOR BEAM 2 THRU 17
LOOKING TOWARDS INCREASING STATION



PLAN-END FL BM. 1
END FLOOR BEAM 1 AND 18
LOOKING TOWARDS INCREASING STATION

NOTES:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Def. see Sht. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS 01 THRU 03
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 288 OF 526

SIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF&E-I	ST. CLAIR	247	159
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

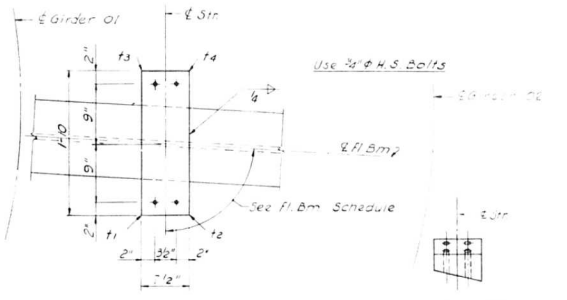
FLOOR BEAM 2 THRU 4	T1	T2	T3	T4
STR. 1 THRU 4	1/2	1 1/16	9/16	1 1/8

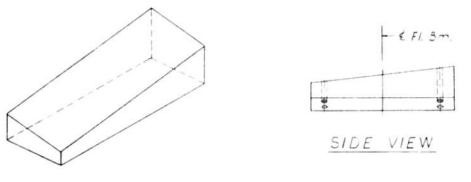
FLOOR BEAM 5 THRU 7	T1	T2	T3	T4
STR. 5 THRU 10	1/2	1 1/16	9/16	1 1/8

FLOOR BEAM 8 THRU 11	T1	T2	T3	T4
STR. 11 THRU 16	1/2	1 1/16	9/16	1 1/8

FLOOR BEAM 12 THRU 14	T1	T2	T3	T4
STR. 17 THRU 22	9/16	1 1/8	1/2	1 1/16

FLOOR BEAM 15 THRU 17	T1	T2	T3	T4
STR. 23 THRU 28	5/8	1 1/4	3/8	1





SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS 01 THRU 03

POPLAR STREET BRIDGE APPROACHES
RAMP "O"

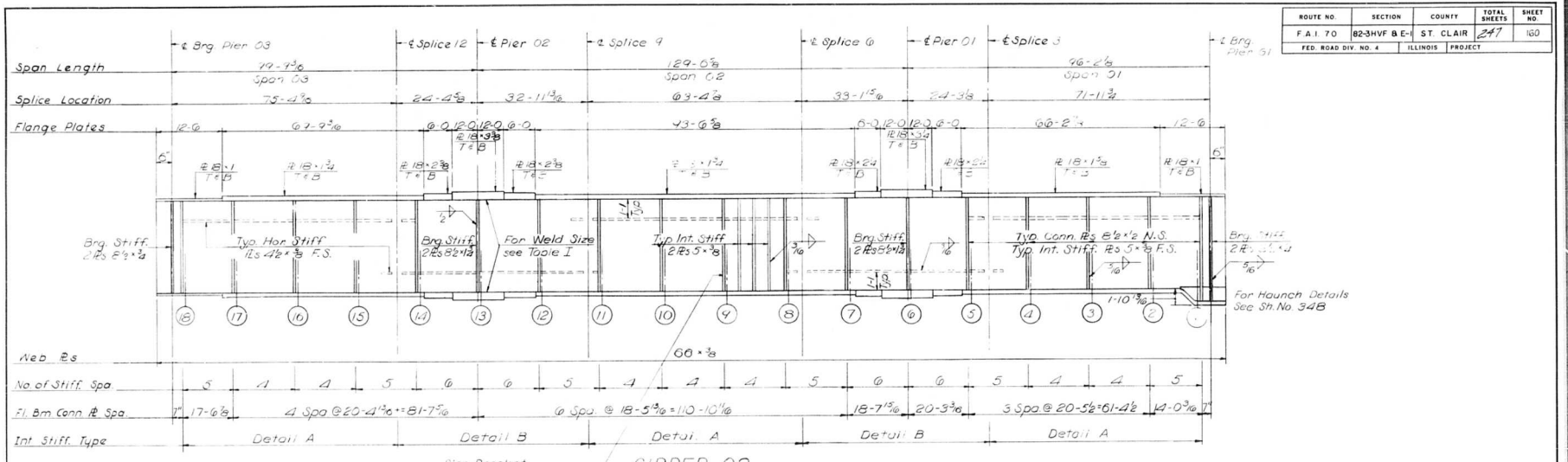
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 289 OF 526

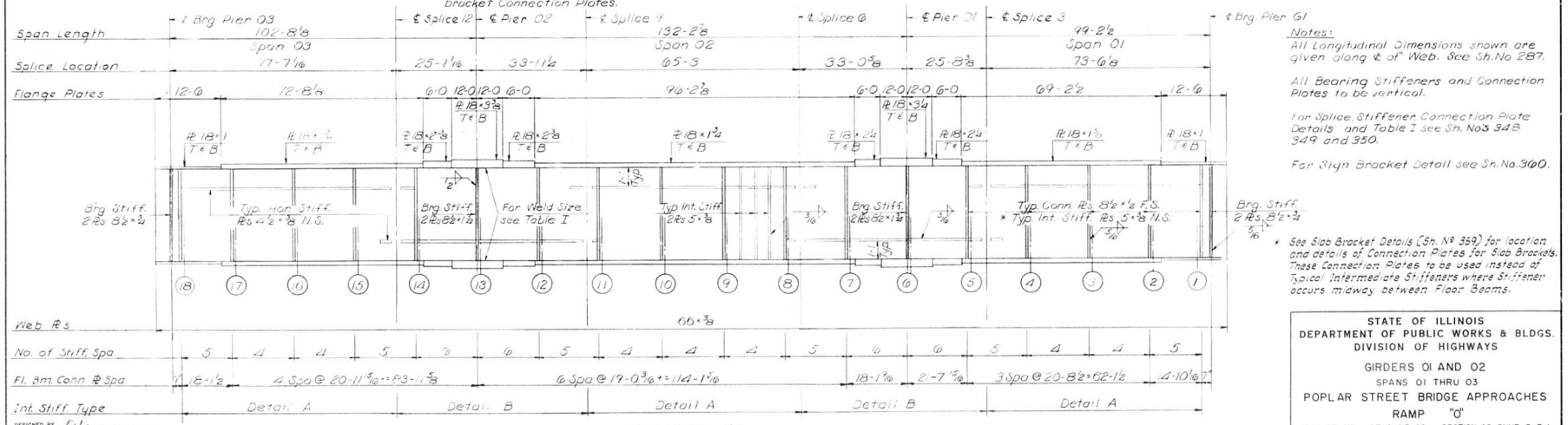
DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	160
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



Sign Bracket Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plates.

GIRDER 02
SPANS 01 thru 03



GIRDER 01
SPANS 01 thru 03

Notes:

All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 287.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I see Sh. Nos. 348 349 and 350.

For Sign Bracket Detail see Sh. No. 300.

* See Slab Bracket Details (Sh. No. 359) for location and details of Connection Plates for Slab Brackets. These Connection Plates to be used instead of Typical Intermediate Stiffeners where Stiffener occurs midway between Floor Beams.

DESIGNED BY E.L.
DRAWN BY S.C.H.
CHECKED BY A.T.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

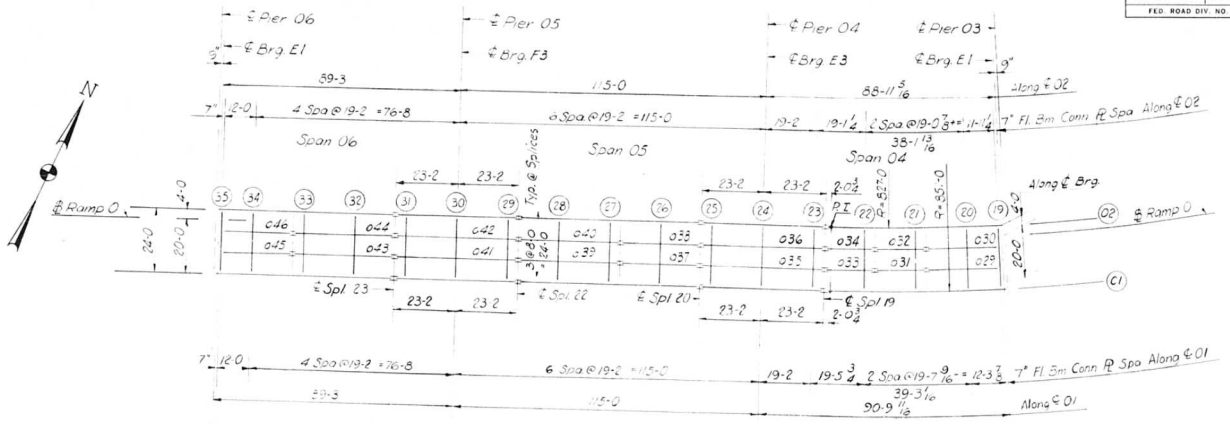
GIRDERS 01 AND 02
SPANS 01 THRU 03
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 290 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST CLAIR	247	161
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans 04 Thru 06

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. 01	GIR. 02	DIFF.
CL. BRG.		459.331	457.411	1.920
FLOOR BEAM	19	459.316	457.401	1.915
FLOOR BEAM	20	459.002	457.208	1.794
FLOOR BEAM	21	458.503	456.899	1.604
FLOOR BEAM	22	458.003	456.591	1.412
SPLICE	19	457.609	456.346	1.263
FLOOR BEAM	23	457.486	456.256	1.230
FLOOR BEAM	24	456.896	455.823	1.073
FLOOR BEAM	25	456.307	455.390	.917
SPLICE	20	456.184	455.300	.884
FLOOR BEAM	26	455.622	454.862	.759
FLOOR BEAM	27	454.911	454.308	.603
FLOOR BEAM	28	454.201	453.755	.446
SPLICE	22	453.639	453.316	.322
FLOOR BEAM	29	453.465	453.176	.289
FLOOR BEAM	30	452.634	452.501	.133
FLOOR BEAM	31	451.802	451.826	-.024
SPLICE	23	451.629	451.685	-.055
FLOOR BEAM	32	450.877	451.058	-.181
FLOOR BEAM	33	449.928	450.265	-.337
FLOOR BEAM	34	448.978	449.472	-.494
FLOOR BEAM	35	448.384	448.975	-.590
CL. BRG.		448.355	448.951	-.596

BILL OF MATERIAL		
*Structural Steel	Lbs.	286,300

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6320

DESIGNED BY E.W.S.
DRAWN BY J.K.
CHECKED BY A.T.
APPROVED BY R.S.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS 04 THRU 06
POPLAR STREET BRIDGE APPROACHES
RAMP "O"
F.A.I. RT.70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 291 of 526

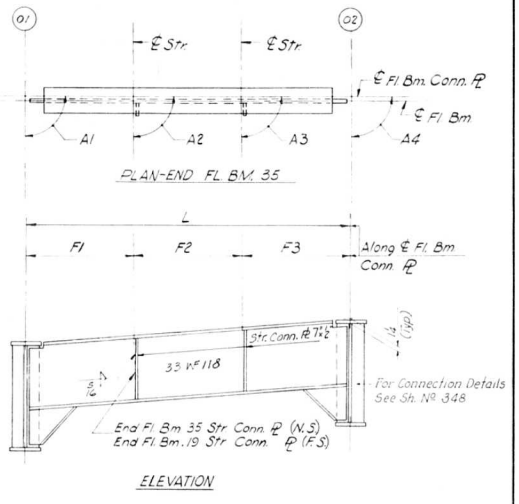
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	162
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

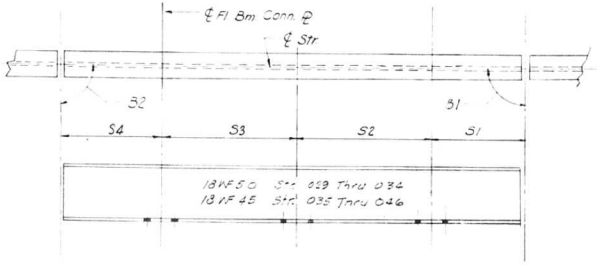
STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
29	27 6 15/16		12 2 5/16		15 4 5/8	91.01.40	90.56.14
30	27 3 5/8		12 3/4		15 2 7/8	91.01.42	90.56.12
31	19 5 5/16	4 11/16			15 4 5/8	90.39.39	90.39.39
32	19 3 1/8	4 1/4			15 2 7/8	90.39.39	90.39.39
33	19 4 15/16	4 11/16			15 4 1/4	90.39.08	90.31.37
34	19 3	4 1/4			15 2 3/4	90.39.10	90.31.35
35	46 4	4	19 2	19 2	4	90.00.00	90.00.00
36	46 4	4	19 2	19 2	4	90.00.00	90.00.00
37	30 4	15 2			15 2	90.00.00	90.00.00
38	30 4	15 2			15 2	90.00.00	90.00.00
39	38 4	4	19 2		15 2	90.00.00	90.00.00
40	38 4	4	19 2		15 2	90.00.00	90.00.00
41	46 4	4	19 2	19 2	4	90.00.00	90.00.00
42	46 4	4	19 2	19 2	4	90.00.00	90.00.00
43	38 4	15 2	19 2		4	90.00.00	90.00.00
44	38 4	15 2	19 2		4	90.00.00	90.00.00
45	27 2	15 2	12			90.00.00	90.00.00
46	27 2	15 2	12			90.00.00	90.00.00

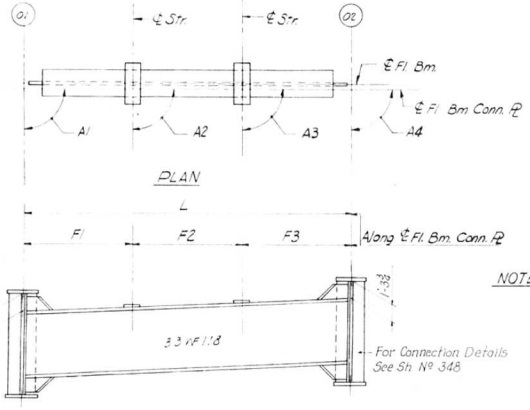
FLOOR BEAM DIMENSIONS

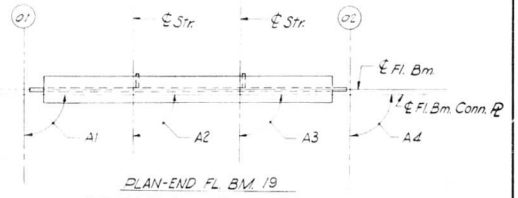
FL BM	L	F1	F2	F3	A1	A2	A3	A4
19	24	8	8	8	90.05.23	91.01.40	91.01.42	90.05.33
20	24	8 1 5/16	8	7 10 11/16	90.00.00	90.06.31	90.06.32	90.00.00
21	24	8 7/16	8	7 11 9/16	90.00.00	90.23.06	90.23.06	90.00.00
22	24	8 7/16	8	7 11 9/16	90.00.00	90.22.35	90.22.37	90.00.00
23	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
24	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
25	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
26	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
27	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
28	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
29	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
30	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
31	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
32	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
33	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
34	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
35	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00





TYPICAL STRINGER





NOTES:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/8".

All dimensions are in the horizontal plane.

For Connection Plate Def. See Sh. Nº 348

DESIGNED BY R.M.R.
DRAWN BY J.
CHECKED BY A.T.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS 04 THRU 06
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 292 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	163
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 20	T1	T2	T3	T4
STR.				
29	15/16	1 1/2	1/2	1 1/16
30	15/16	1 1/2	1/2	1 1/16

FLOOR BEAM 21	T1	T2	T3	T4
STR.				
31	1	1 1/2	1/2	1
32	15/16	1 7/16	9/16	1 1/16

FLOOR BEAM 22	T1	T2	T3	T4
STR.				
33	1	1 7/16	9/16	1
34	1	1 7/16	9/16	1

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
35	1 1/8	1 1/2	1/2	7/8
36	1 1/16	1 1/2	1/2	15/16

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
35	1 1/8	1 1/2	1/2	7/8
25	1 1/8	1 7/16	9/16	7/8

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
35	1 3/16	1 7/16	9/16	13/16
36	1 1/8	1 7/16	9/16	7/8

FLOOR BEAM 26	T1	T2	T3	T4
STR.				
37	1 1/4	1 1/2	1/2	3/4
38	1 1/4	1 7/16	9/16	3/4

FLOOR BEAM 27	T1	T2	T3	T4
STR.				
39	1 5/16	1 1/2	1/2	11/16
40	1 1/4	1 7/16	9/16	3/4

FLOOR BEAM 28	T1	T2	T3	T4
STR.				
39	1 5/16	1 7/16	9/16	11/16
40	1 1/4	1 7/16	9/16	3/4

FLOOR BEAM 29	T1	T2	T3	T4
STR.				
41	1 3/8	1 1/2	1/2	5/8
42	1 3/8	1 7/16	9/16	5/8

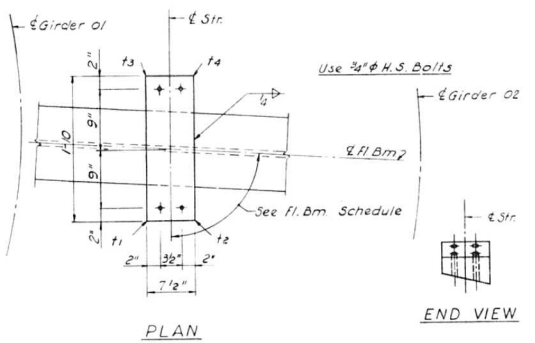
FLOOR BEAM 30	T1	T2	T3	T4
STR.				
41	1 7/16	1 7/16	9/16	9/16
42	1 3/8	1 7/16	9/16	5/8

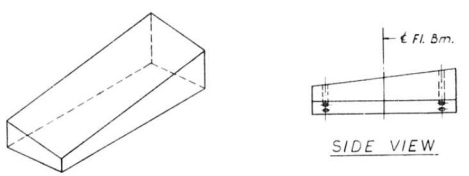
FLOOR BEAM 31	T1	T2	T3	T4
STR.				
41	1 7/16	1 7/16	9/16	9/16
42	1 7/16	1 7/16	9/16	9/16

FLOOR BEAM 32	T1	T2	T3	T4
STR.				
43	1 9/16	1 1/2	1/2	7/16
44	1 1/2	1 7/16	9/16	1/2

FLOOR BEAM 33	T1	T2	T3	T4
STR.				
43	1 9/16	1 7/16	9/16	7/16
44	1 9/16	1 7/16	9/16	7/16

FLOOR BEAM 34	T1	T2	T3	T4
STR.				
45	1 9/16	1 7/16	9/16	7/16
46	1 9/16	1 7/16	9/16	7/16





SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY A.S.
DRAWN BY E.M.
CHECKED BY A.J.C.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS 04 THRU 06

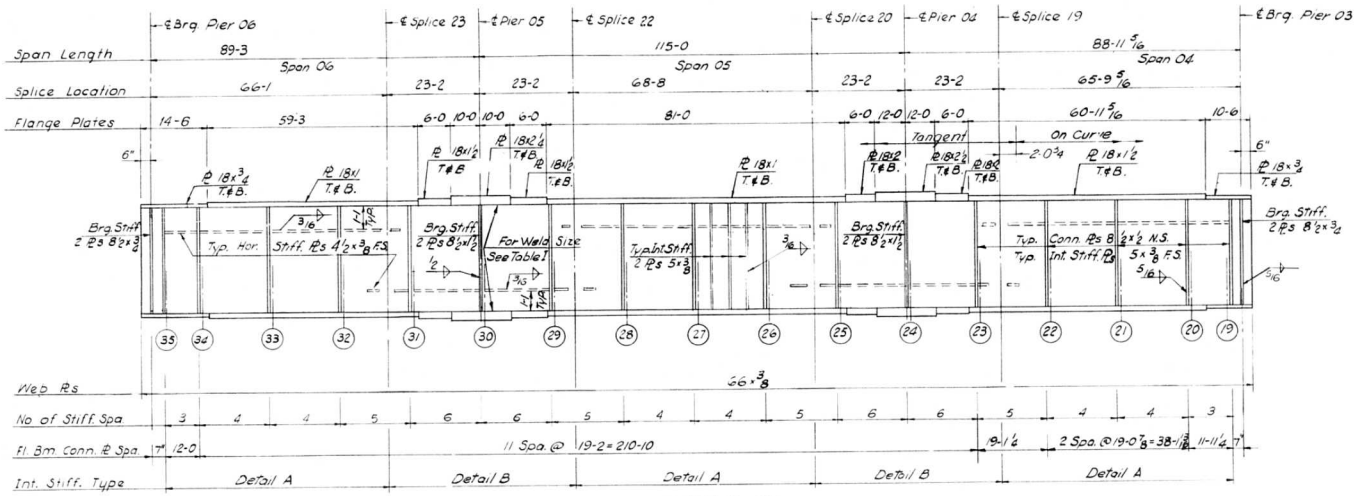
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

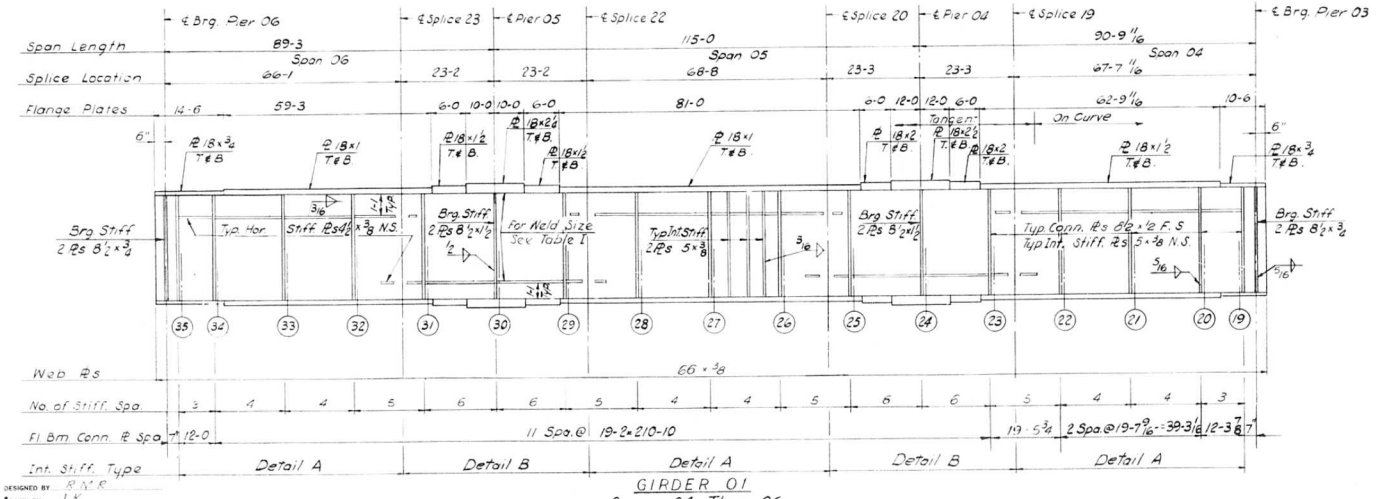
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 293 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	164
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER 02
Spans 04 Thru 06



GIRDER 01
Spans 04 Thru 06

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 291

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No. 348, 349 and 350.

DESIGNED BY R.M.R.
DRAWN BY J.K.
CHECKED BY E.L.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

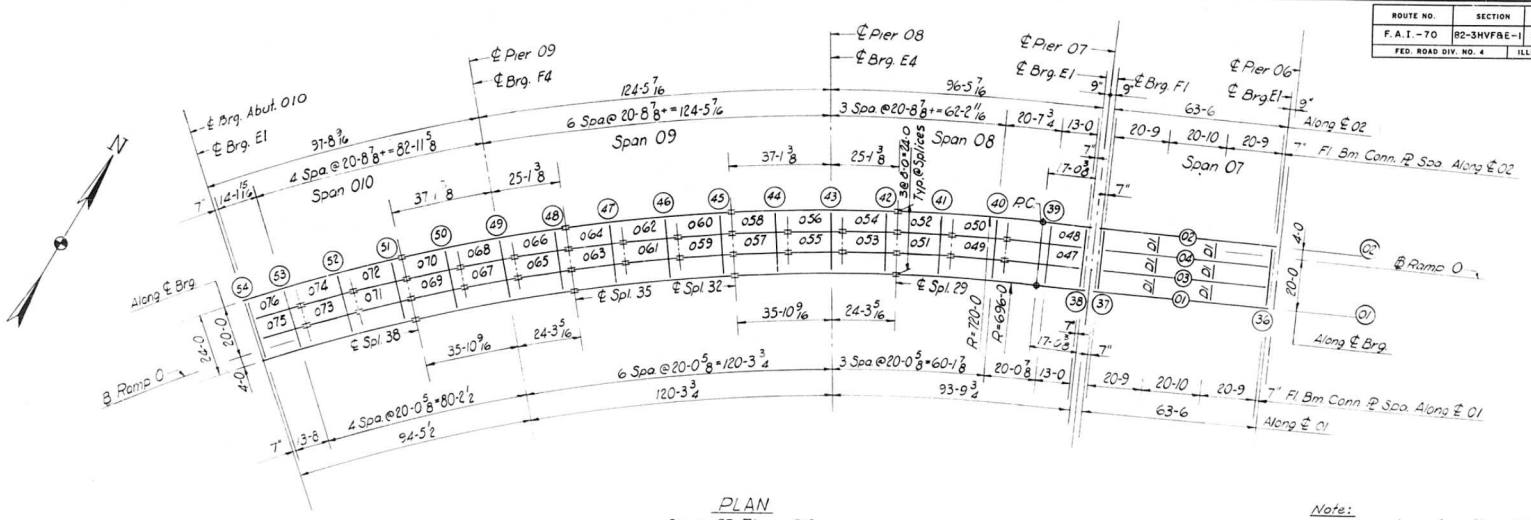
GIRDERS 01 AND 02
SPANS 04 THRU 06
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
294 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	547	165
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans 07 Thru 010

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. 01	GIR. 02	DIFF.
CL. BRG.		444.576	445.716	1.140
FLOOR BEAM	38	444.538	445.684	1.146
FLOOR BEAM	39	443.685	444.975	1.290
FLOOR BEAM	40	442.368	443.847	1.479
FLOOR BEAM	41	441.052	442.715	1.663
SPLICE	29	440.013	441.821	1.808
FLOOR BEAM	42	439.751	441.567	1.816
FLOOR BEAM	43	438.510	440.363	1.853
FLOOR BEAM	44	437.269	439.160	1.891
SPLICE	32	436.289	438.209	1.920
FLOOR BEAM	45	436.041	437.961	1.920
FLOOR BEAM	46	434.863	436.783	1.920
FLOOR BEAM	47	433.685	435.605	1.920
SPLICE	35	432.755	434.675	1.920
FLOOR BEAM	48	432.539	434.459	1.920
FLOOR BEAM	49	431.513	431.433	1.920
FLOOR BEAM	50	430.487	432.407	1.920
SPLICE	38	429.676	431.596	1.920
FLOOR BEAM	51	429.494	431.414	1.920
FLOOR BEAM	52	428.628	430.548	1.920
FLOOR BEAM	53	427.762	429.682	1.920
FLOOR BEAM	54	427.172	429.091	1.919
CL. BRG.		427.147	429.067	1.920

ELEVATION TOP OF FLANGE

		BM. 01	BM. 02	DIFF.
CL. BRG.		448.483	449.092	.609
FLOOR BEAM	36	448.450	449.064	.614
FLOOR BEAM	37	444.908	446.031	1.123
CL. BRG.		444.875	446.003	1.128

BILL OF MATERIAL

*Structural Steel	Lbs.	414,180

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 9140 Lbs.

DESIGNED BY RME
DRAWN BY JK
CHECKED BY AE
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS 07 THRU 010
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 295 OF 526

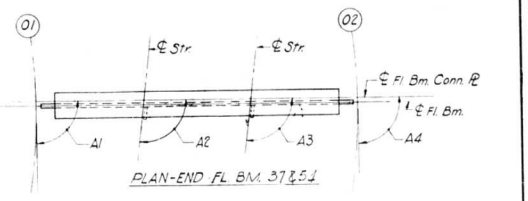
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	166
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

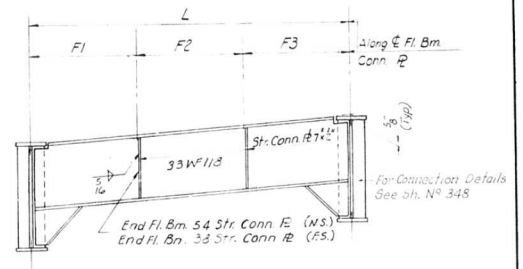
STR	L	S1	S2	B1	B2
47	28 11 7/8	13	15 11 7/8	89.46.45	89.12.01
48	28 1 9/16	13	16 1 9/16	89.46.40	89.17.06
49	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
50	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
51	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
52	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
53	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
54	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
55	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
56	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
57	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
58	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
59	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
60	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
61	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
62	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
63	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
64	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
65	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
66	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
67	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
68	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
69	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
70	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
71	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
72	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
73	20 3 3/8	4 3 5/16	16 1/16	89.10.29	89.10.29
74	20 6 1/8	4 3 7/8	16 2 1/4	89.10.29	89.10.29
75	18 1 1/4	4 3 5/16	13 9 15/16	89.15.48	89.12.57
76	18 3 13/16	4 3 7/8	13 11 15/16	89.15.47	89.12.58

FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
36	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
37	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
38	24	8	8	8	90.00.00	89.46.45	89.46.40	90.00.00
39	24	7 11 3/8	8	8 5/8	90.00.00	89.46.45	89.46.40	90.00.00
40	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
41	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
42	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
43	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
44	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
45	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
46	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
47	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
48	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
49	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
50	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
51	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
52	24	7 11 7/16	8	8 9/16	90.00.00	89.31.21	89.31.21	90.00.00
53	24	7 11 1/2	8	8 1/2	90.00.00	89.36.40	89.36.39	90.00.00
54	24	8	8	8	90.02.53	90.47.03	90.47.02	90.02.47

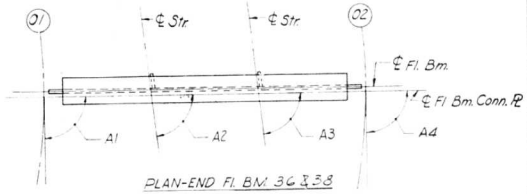


PLAN-END FL. BM. 37 & 54



ELEVATION END FL. BMS. 38 & 54

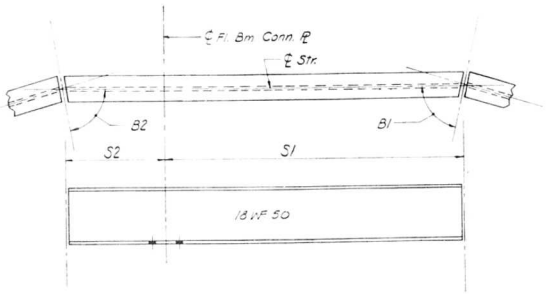
Note: For Elevation of End Fl. Bms 36 & 37 See Sheet No. 298



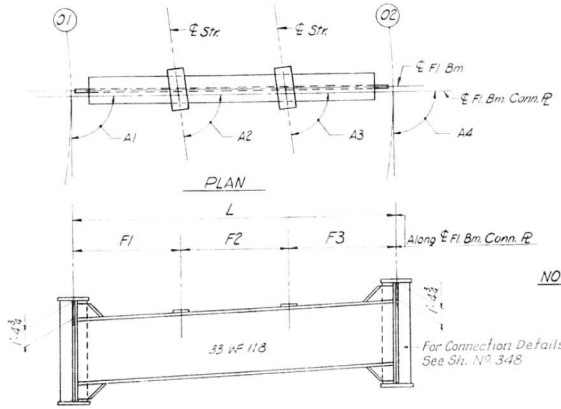
PLAN-END FL. BM. 36 & 38

END FLOOR BEAM 36-37-38 & 54

LOOKING TOWARDS INCREASING STATION



TYPICAL STRINGER



ELEVATION

INTERIOR FLOOR BEAM 39 THRU 53

LOOKING TOWARDS INCREASING STATION

NOTES:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".

All dimensions are in the horizontal plane.

For Connection Plate Det. see Sh. Nº 348

DESIGNED BY: R.M.B.
DRAWN BY: J.K.
CHECKED BY: A.T.
APPROVED BY: L.J.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS 07 THRU 010
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 296 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	167
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 39	T1	T2	T3	T4
STR.				
47	2 3/16	1 13/16	13/16	7/16
48	2 1/8	1 3/4	7/8	1/2

FLOOR BEAM 40	T1	T2	T3	T4
STR.				
49	2 1/4	1 3/4	7/8	3/8
50	2 3/16	1 3/4	7/8	7/16

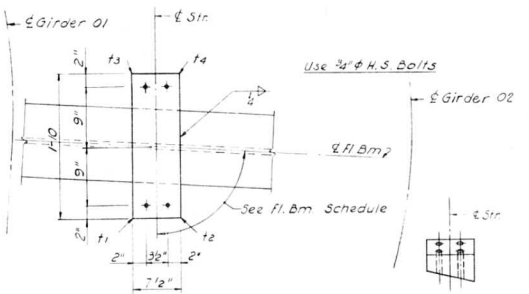
FLOOR BEAM 41	T1	T2	T3	T4
STR.				
51	2 1/4	1 3/4	7/8	3/8
52	2 3/16	1 11/16	15/16	7/16

FLOOR BEAM 42 THRU 44	T1	T2	T3	T4
STR. 53 THRU 58	2 1/4	1 11/16	15/16	3/8

FLOOR BEAM 45 THRU 47	T1	T2	T3	T4
STR. 59 THRU 64	2 1/4	1 5/8	1	3/8

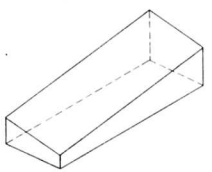
FLOOR BEAM 48 THRU 50	T1	T2	T3	T4
STR. 65 THRU 70	2 3/16	1 9/16	1 1/16	7/16

FLOOR BEAM 51 THRU 54	T1	T2	T3	T4
STR. 71 THRU 76	2 1/16	1 1/2	1 1/8	9/16

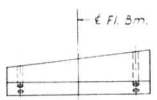


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS 08 THRU 010

POPLAR STREET BRIDGE APPROACHES
RAMP "O"

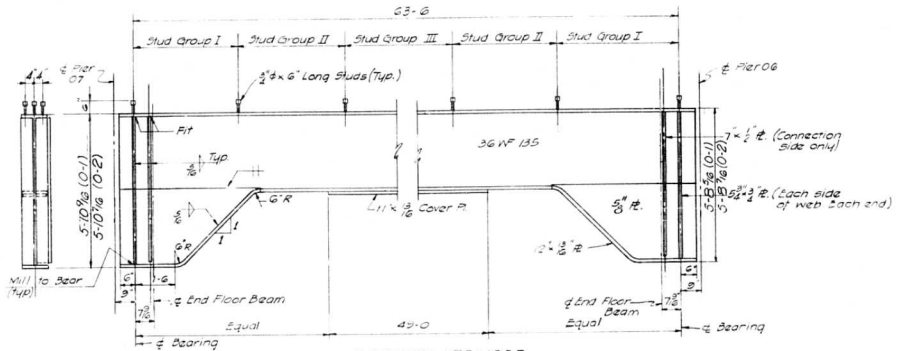
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

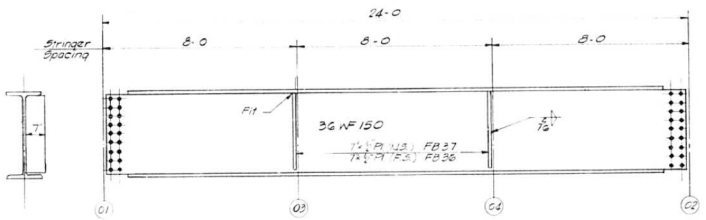
SHEET
237 OF 526

DESIGNED BY A.S
DRAWN BY J.K
CHECKED BY A.J.C
APPROVED BY R.A

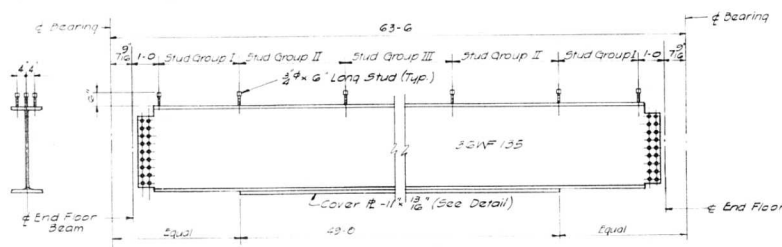
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	168
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



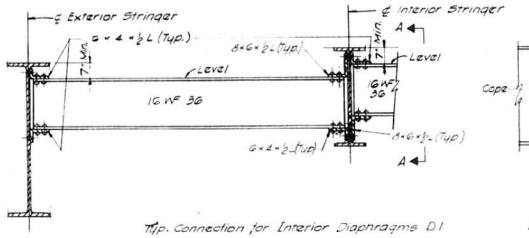
EXTERIOR STRINGER
(01 & 02)



END FLOORBEAM
(FB36 & FB37)



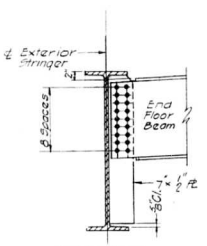
INTERIOR STRINGER
(03 & 04)



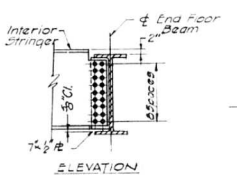
Typ. Connection for Interior Diaphragms D1

DIAPHRAGM DETAILS

SECTION A-A

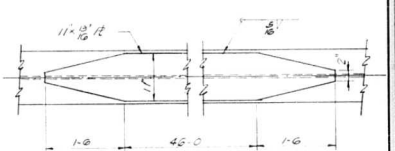


ELEVATION

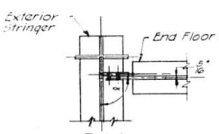


ELEVATION

NOTE:
Clip all stiffeners and connection plates ¾ x ¾ at corners to clear welding of flange to beam to clear beam fillets.

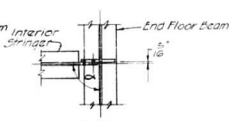


COVER PLATE DETAIL



PLAN

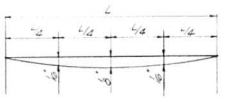
END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION



PLAN

INTERIOR STRINGER TO END FLOORBEAM CONNECTION

NOTE: For Angle ∝ see Floor Beam Schedule Sheet No. 296



DEAD LOAD DEFLECTION DIAGRAM FOR END FLOORBEAM
(Wt. of Concrete Only)

NOTES:
For Expansion Device Detail see Sheet No. 364
For Framing Plan see Sheet No. 295

SHEAR CONNECTOR TABLE

BEAM	GROUP I	GROUP II	GROUP III
01 & 02	32@4½"	23@6"	19@9½"
03 & 04	28@4½"	22@6"	20@9½"

DESIGNED BY M.J.
DRAWN BY
CHECKED BY L.W.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN 07

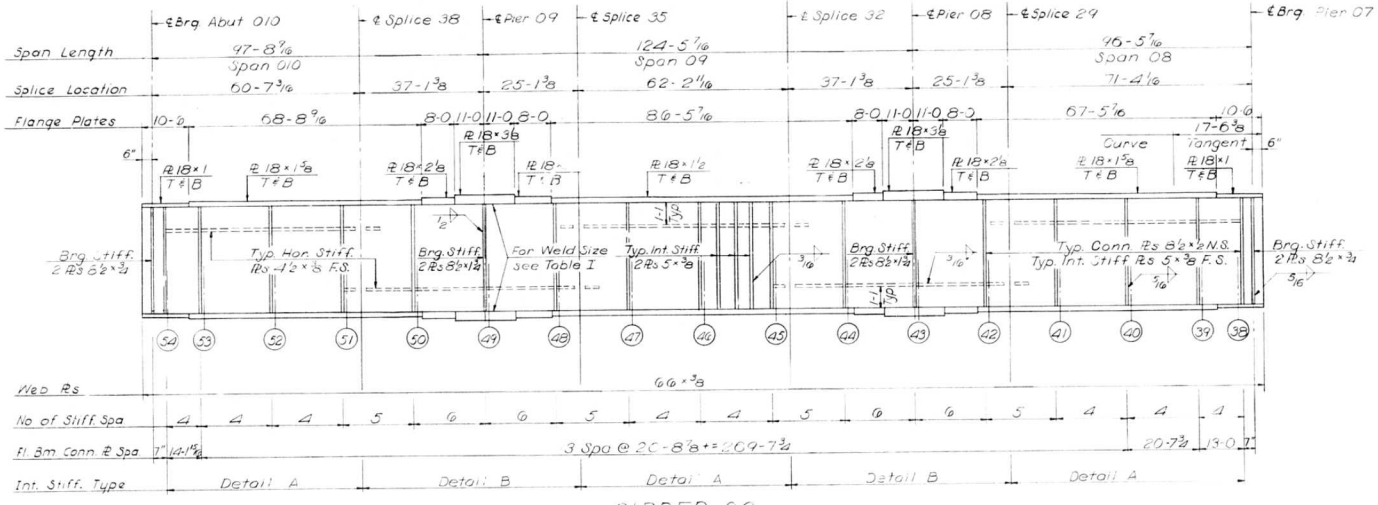
POPLAR STREET BRIDGE APPROACHES
RAMP "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

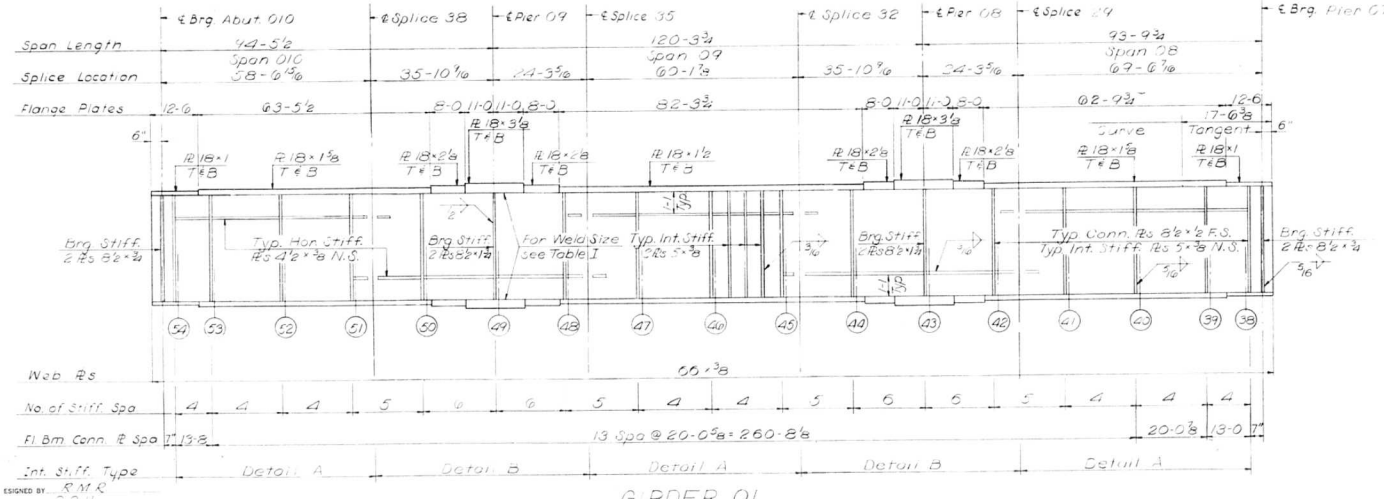
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 218 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	169
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER 02
SPANS 08 thru 010



GIRDER 01
SPANS 08 thru 010

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 295

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. Nos. 348, 349 and 350.

DESIGNED BY S.M.R.
DRAWN BY S.O.H.
CHECKED BY A.T.
APPROVED BY R.A.

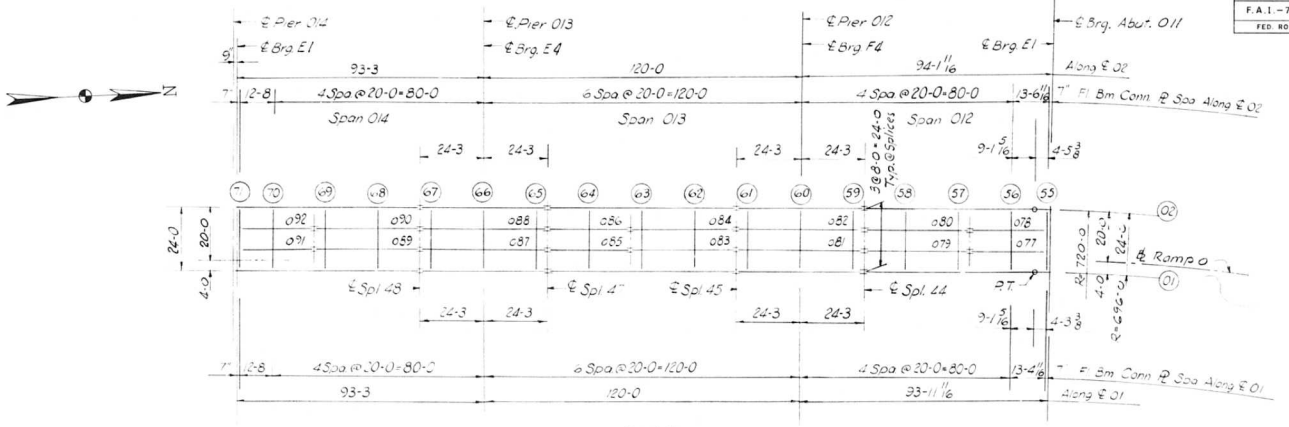
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS 01 AND 02
SPANS 08 THRU 010
POPLAR STREET BRIDGE APPROACHES
RAMP "O"
FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 293 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	170
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



PLAN
Spans 012 Thru 014

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. 01	GIR. 02	DIFF.
CL. BRG.		423.782	425.277	1.495
FLOOR BEAM	55	423.800	425.289	1.489
FLOOR BEAM	56	424.214	425.572	1.358
FLOOR BEAM	57	424.832	425.990	1.158
FLOOR BEAM	58	425.451	426.407	.955
SPLICE	44	425.938	426.736	.798
FLOOR BEAM	59	426.100	426.872	.772
FLOOR BEAM	60	426.863	427.512	.649
FLOOR BEAM	61	427.626	428.151	.525
SPLICE	45	427.788	428.287	.499
FLOOR BEAM	62	428.418	428.917	.499
FLOOR BEAM	63	429.218	429.717	.499
FLOOR BEAM	64	430.018	430.517	.499
SPLICE	47	430.648	431.147	.499
FLOOR BEAM	65	430.818	431.317	.499
FLOOR BEAM	66	431.618	432.117	.499
FLOOR BEAM	67	432.418	432.917	.499
SPLICE	48	432.588	433.087	.499
FLOOR BEAM	68	433.218	433.717	.499
FLOOR BEAM	69	434.018	434.517	.499
FLOOR BEAM	70	434.818	435.317	.499
FLOOR BEAM	71	435.325	435.824	.499
CL. BRG.		435.348	435.847	.499

BILL OF MATERIAL

*Structural Steel	Lbs.	274,720

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS 012 THRU 014
POPLAR STREET BRIDGE APPROACHES
RAMP "O"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 300 of 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

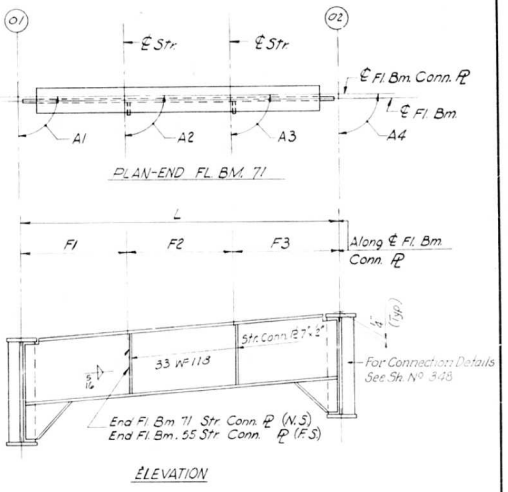
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	171
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

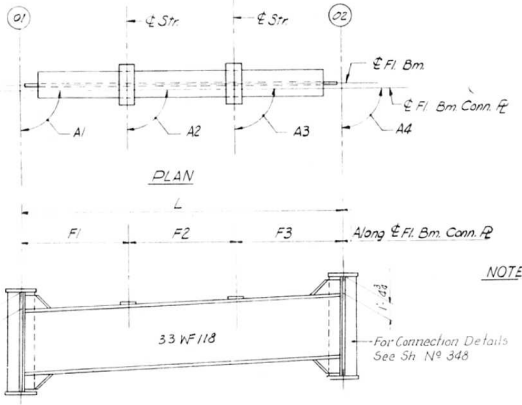
STRINGER DIMENSIONS

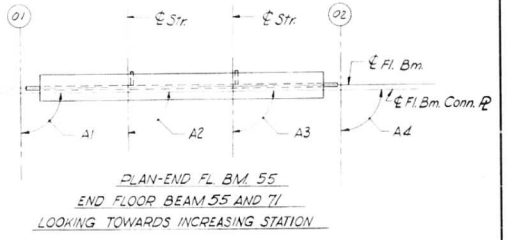
STR	L	S1	S2	S3	S4	B1	B2
77	29 2 5/16		13 5 5/16		15 9	89.37.33	89.58.28
78	29 3		13 6		15 9	89.37.34	89.58.24
79	40	4 3	20		15 9	90.00.00	90.00.00
80	40	4 3	20		15 9	90.00.00	90.00.00
81	48 6	4 3	20	20	4 3	90.00.00	90.00.00
82	48 6	4 3	20	20	4 3	90.00.00	90.00.00
83	40	15 9	20		4 3	90.00.00	90.00.00
84	40	15 9	20		4 3	90.00.00	90.00.00
85	31 6	15 9			15 9	90.00.00	90.00.00
86	31 6	15 9			15 9	90.00.00	90.00.00
87	48 6	4 3	20	20	4 3	90.00.00	90.00.00
88	48 6	4 3	20	20	4 3	90.00.00	90.00.00
89	40	15 9	20		4 3	90.00.00	90.00.00
90	40	15 9	20		4 3	90.00.00	90.00.00
91	28 5	15 9	12 8			90.00.00	90.00.00
92	28 5	15 9	12 8			90.00.00	90.00.00

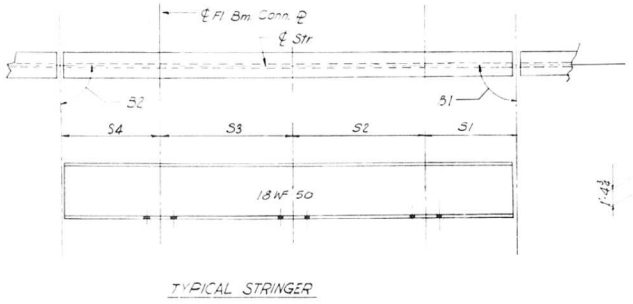
FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
55	24	8	8	8	89.57.07	89.37.33	89.37.34	89.57.13
56	24	7 11 15/16	8	8 1/16	90.00.00	90.01.34	90.01.36	90.00.00
57	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
58	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
59	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
60	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
61	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
62	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
63	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
64	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
65	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
66	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
67	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
68	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
69	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
70	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
71	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00









NOTES:
- Length L of Stringers and Fl. Bms. is correct as given in the Table except the increment lengths are given to the nearest "16".
- All dimensions are in the horizontal plane.
- For Connection Plate Det. see Sh Nº 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS 012 THRU 014
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 301 OF 526

DESIGNED BY A.T.
DRAWN BY J.K.
CHECKED BY A.T.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	172
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 56	T1	T2	T3	T4
STR.				
77	7/8	7/16	1 7/16	1
78	7/8	7/16	1 7/16	1

FLOOR BEAM 57	T1	T2	T3	T4
STR.				
79	13/16	7/16	1 7/16	1 1/16
80	7/8	1/2	1 3/8	1

FLOOR BEAM 58	T1	T2	T3	T4
STR.				
79	13/16	1/2	1 3/8	1 1/16
80	13/16	1/2	1 3/8	1 1/16

FLOOR BEAM 59	T1	T2	T3	T4
STR.				
81	11/16	7/16	1 7/16	1 3/16
82	11/16	7/16	1 7/16	1 3/16

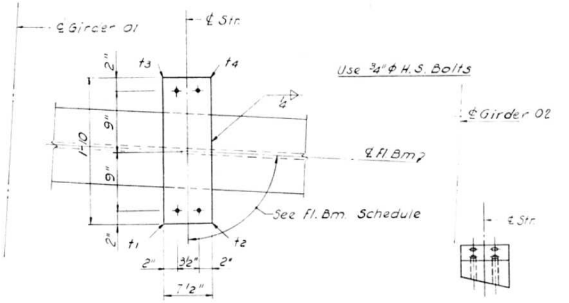
FLOOR BEAM 60	T1	T2	T3	T4
STR.				
81	5/8	7/16	1 7/16	1 1/4
82	11/16	7/16	1 7/16	1 3/16

FLOOR BEAM 61	T1	T2	T3	T4
STR.				
81	5/8	7/16	1 7/16	1 1/4
82	5/8	1/2	1 3/8	1 1/4

FLOOR BEAM 62 THRU 64	T1	T2	T3	T4
STR. 83 THRU 86	9/16	7/16	1 7/16	1 5/16

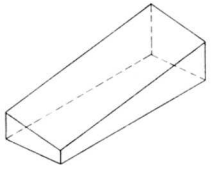
FLOOR BEAM 65 THRU 67	T1	T2	T3	T4
STR. 87 THRU 88	9/16	7/16	1 7/16	1 5/16

FLOOR BEAM 68 THRU 70	T1	T2	T3	T4
STR. 89 THRU 92	9/16	7/16	1 7/16	1 5/16

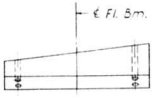


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS 012 THRU 014

POPLAR STREET BRIDGE APPROACHES
RAMP "O"

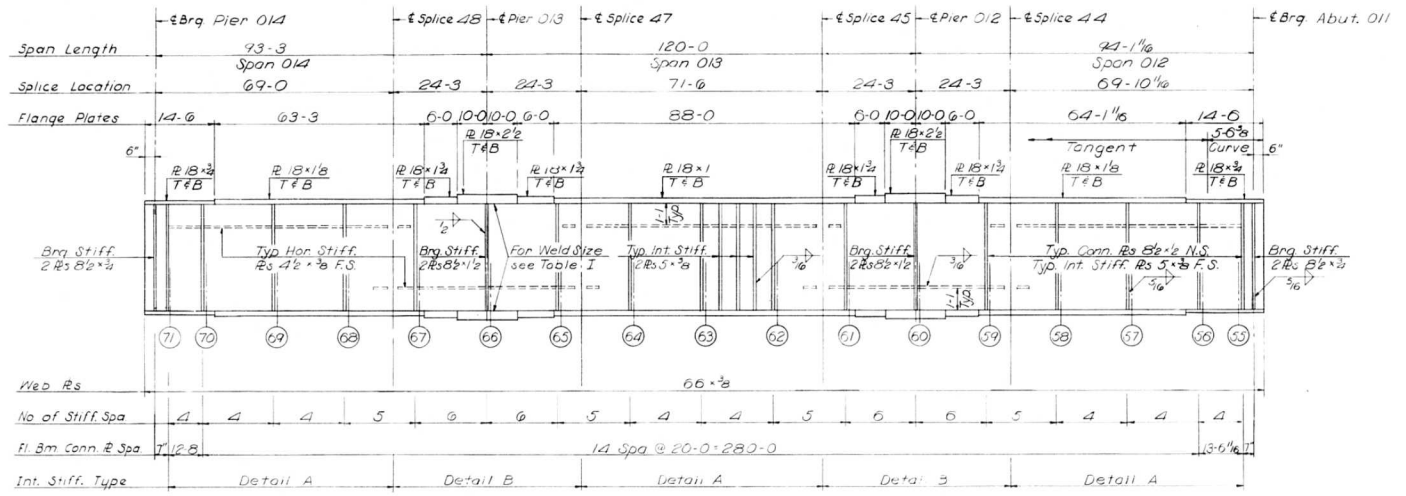
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

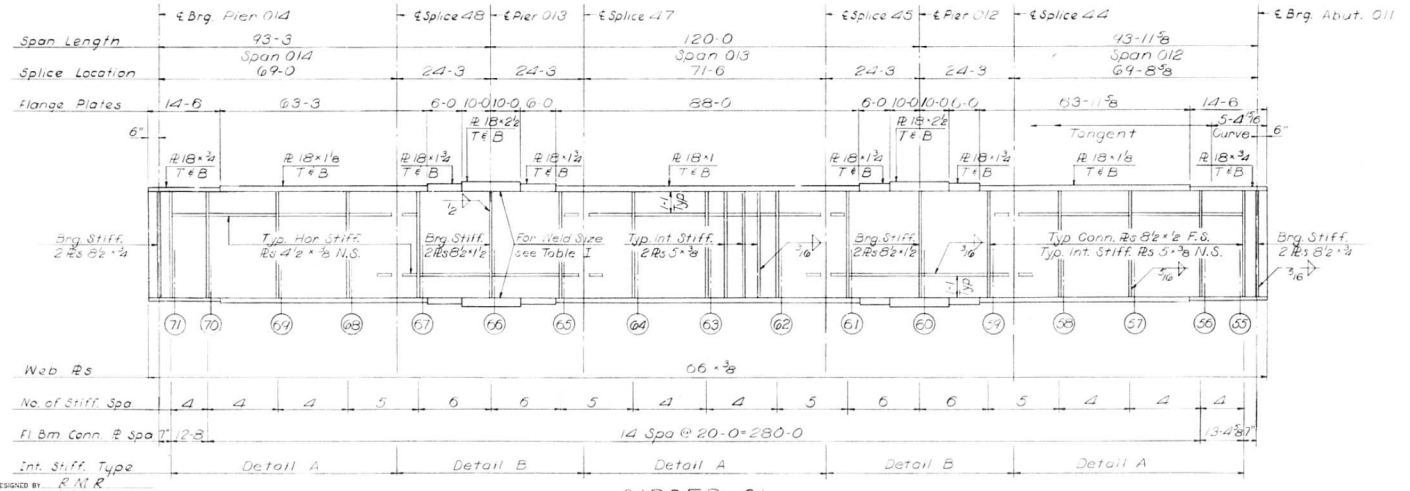
SHEET 302 OF 52

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	173
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER 02
SPANS 012 thru 014



GIRDER 01
SPANS 012 thru 014

DESIGNED BY R.N.R.
DRAWN BY O.C.H.
CHECKED BY A.T.
APPROVED BY K.A.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 300

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No. 348, 349 and 350.

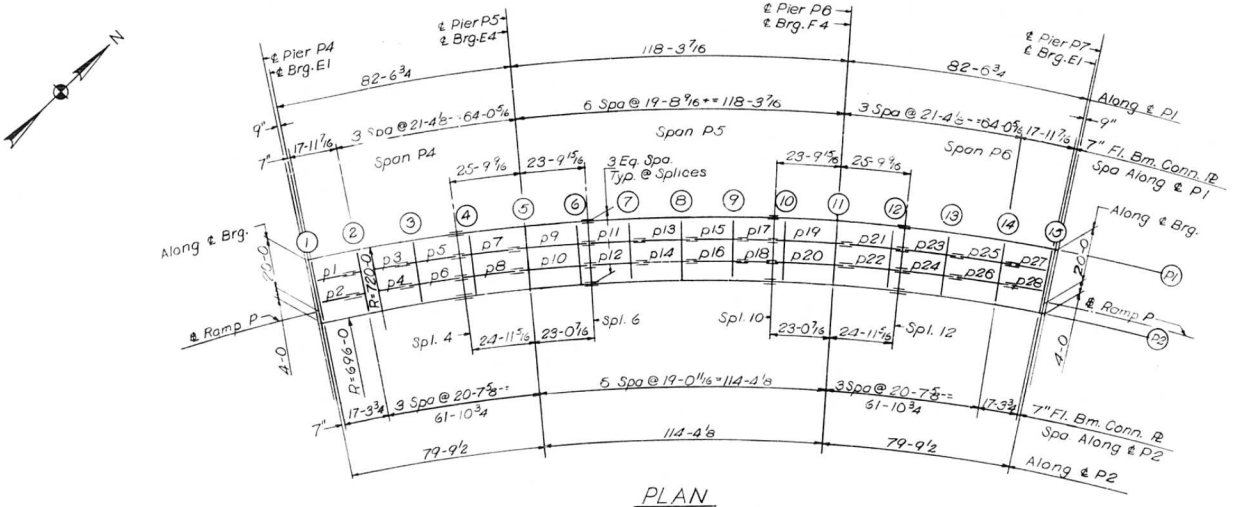
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS 01 AND 02
SPANS 012 THRU 014
POPLAR STREET BRIDGE APPROACHES
RAMP "O"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 303 OF 525

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	174
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
SPANS P4 THRU P6

ELEVATION TOP OF GIRDER WEB

		GIR. P1	GIR. P2	DIFF.
CL. BRG.		470.667	468.747	1.920
FLOOR BEAM	1	470.674	468.755	1.919
FLOOR BEAM	2	470.903	468.982	1.921
FLOOR BEAM	3	471.174	469.254	1.920
SPLICE	4	471.389	469.469	1.920
FLOOR BEAM	4	471.421	469.501	1.920
FLOOR BEAM	5	471.575	469.655	1.920
FLOOR BEAM	6	471.717	469.797	1.920
SPLICE	6	471.747	469.827	1.920
FLOOR BEAM	7	471.763	469.843	1.920
FLOOR BEAM	8	471.783	469.863	1.920
FLOOR BEAM	9	471.803	469.883	1.920
SPLICE	10	471.818	469.898	1.920
FLOOR BEAM	10	471.797	469.877	1.920
FLOOR BEAM	11	471.694	469.774	1.920
FLOOR BEAM	12	471.583	469.663	1.920
SPLICE	12	471.560	469.640	1.920
FLOOR BEAM	13	471.379	469.459	1.920
FLOOR BEAM	14	471.151	469.231	1.920
FLOOR BEAM	15	470.959	469.039	1.920
CL. BRG.		470.952	469.032	1.920

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn Plate. See sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	315,300

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS P4 THRU P6
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

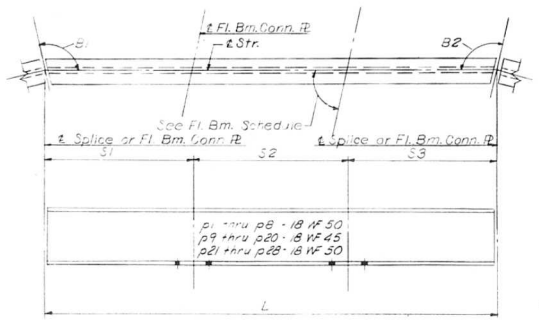
SHEET 304 OF 326

DESIGNED BY RWK
DRAWN BY DCH
CHECKED BY AT
APPROVED BY RT

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF&E-1	ST CLAIR	247	175
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

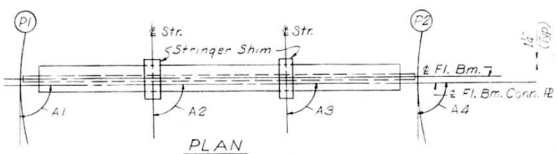
STR.	L	S1	S2	S3	B1	B2
1	13' 3 15/16"	○	○	○	90°38.37"	90°32.11"
2	13 2	○		13 2	90.38.39	90.32.09
3	21 1 1/4	4 4 7/8		16 8 3/8	90.50.57	90.50.57
4	20 10 7/16	4 4 5/16		16 6 1/8	90.50.57	90.50.57
5	21 1 1/4	4 4 7/8		16 8 3/8	90.50.57	90.50.57
6	20 10 7/16	4 4 5/16		16 6 1/8	90.50.57	90.50.57
7	21 1 1/4	4 4 7/8		16 8 3/8	90.50.57	90.50.57
8	20 10 7/16	4 4 5/16	○	16 6 1/8	90.50.57	90.50.57
9	27 11 5/8	4 4 7/8	19 5 15/16	4 13/16	91.07.32	91.07.32
10	27 7 7/8	4 4 5/16	19 3 5/16	4 1/4	91.07.32	91.07.32
11	19 5 15/16	15 5 1/8	○	4 13/16	90.47.04	90.47.04
12	19 3 5/16	15 3		4 1/4	90.47.04	90.47.04
13	19 5 15/16	15 5 1/8		4 13/16	90.47.04	90.47.04
14	19 3 5/16	15 3 1/16		4 1/4	90.47.04	90.47.04
15	19 5 15/16	15 5 1/8		4 13/16	90.47.04	90.47.04
16	19 3 5/16	15 3 1/16		4 1/4	90.47.04	90.47.04
17	11 4 5/16	○		○	90.27.25	90.27.25
18	11 2 3/4	○	○	○	90.27.25	90.27.25
19	27 11 5/8	4 13/16	19 5 15/16	4 4 7/8	91.07.32	91.07.32
20	27 7 7/8	4 1/4	19 3 5/16	4 4 5/16	91.07.32	91.07.32
21	21 1 1/4	16 8 3/8	○	4 4 7/8	90.50.57	90.50.57
22	20 10 7/16	16 6 1/8		4 4 5/16	90.50.57	90.50.57
23	21 1 1/4	16 8 3/8		4 4 7/8	90.50.57	90.50.57
24	20 10 7/16	16 6 1/8		4 4 5/16	90.50.57	90.50.57
25	21 1 1/4	16 8 3/8		4 4 7/8	90.50.57	90.50.57
26	20 10 7/16	16 6 1/8		4 4 5/16	90.50.57	90.50.57
27	13 3 15/16	13 3 15/16		○	90.32.11	90.38.37
28	13 2	○	○	○	90.32.09	90.38.39



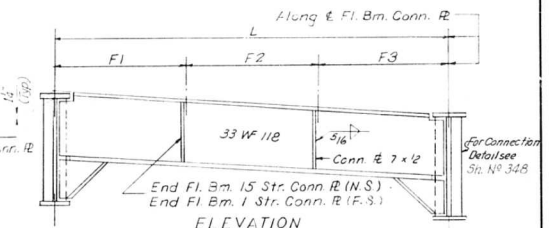
TYPICAL STRINGER

FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	A1	A2	A3	A4
1	24'—0"	8'—0"	8'—0"	8'—0"	90°06.22"	90°38.17"	90°38.39"	90°06.26"
2	24	8 5/8	8	7 11 3/8	90.00.00	90.29.40	90.29.40	90.00.00
3	24	8 5/8	8	7 11 3/8	90.00.00	90.29.40	90.29.40	90.00.00
4	24	8 5/8	8	7 11 3/8	90.00.00	90.29.40	90.29.40	90.00.00
5	24	8 7/8	8	7 11 1/8	90.00.00	90.46.15	90.46.15	90.00.00
6	24	8 13/16	8	7 11 3/16	90.00.00	89.12.07	89.12.07	90.00.00
7	24	8 1/2	8	7 11 1/2	90.00.00	89.32.35	89.32.35	90.00.00
8	24	8 1/2	8	7 11 1/2	90.00.00	89.32.35	89.32.35	90.00.00
9	24	8 1/2	8	7 11 1/2	90.00.00	89.32.35	89.32.35	90.00.00
10	24	8 13/16	8	7 11 3/16	90.00.00	89.47.53	89.47.53	90.00.00
11	24	8 7/8	8	7 11 1/8	90.00.00	89.13.45	89.13.45	90.00.00
12	24	8 5/8	8	7 11 3/8	90.00.00	89.30.20	89.30.20	90.00.00
13	24	8 5/8	8	7 11 3/8	90.00.00	89.30.20	89.30.20	90.00.00
14	24	8 5/8	8	7 11 3/8	90.00.00	89.30.20	89.30.20	90.00.00
15	24	8	8	8	89.51.36	89.21.23	89.21.21	89.51.25

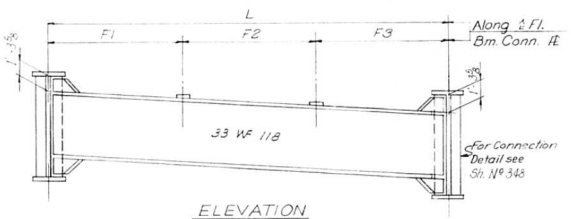


PLAN



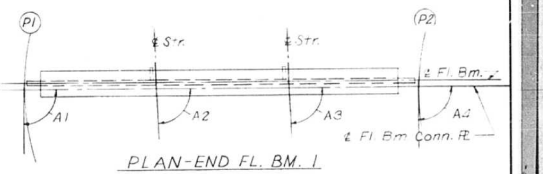
ELEVATION

END FLOOR BEAM 1 AND 15



ELEVATION

INTERIOR FLOOR BEAM 2 THRU 14



PLAN-END FL. BM. 1

PLAN-END FL. BM. 15

Notes:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Detail see Sh. N° 348

DESIGNED BY R.M.B.
DRAWN BY S.O.H.
CHECKED BY A.S.
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS P4 THRU P6
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 305 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF8E-1	ST. CLAIR	247	76
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

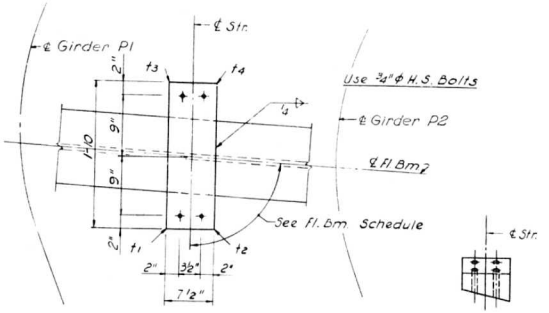
FLOOR BEAM 2 THRU 3	T1	T2	T3	T4
STR. 1 THRU 6	3/8	1	5/8	1 1/4

FLOOR BEAM 4 THRU 6	T1	T2	T3	T4
STR. 7 THRU 10	7/16	1 1/16	9/16	1 3/16

FLOOR BEAM 7 THRU 9	T1	T2	T3	T4
STR. 11 THRU 16	1/2	1 1/8	1/2	1 1/8

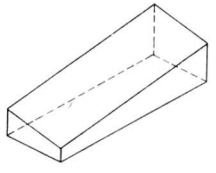
FLOOR BEAM 10 THRU 12	T1	T2	T3	T4
STR. 19 THRU 22	9/16	1 3/16	7/16	1 1/16

FLOOR BEAM 13 THRU 14	T1	T2	T3	T4
STR. 23 THRU 28	5/8	1 1/4	3/8	1

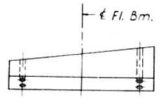


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

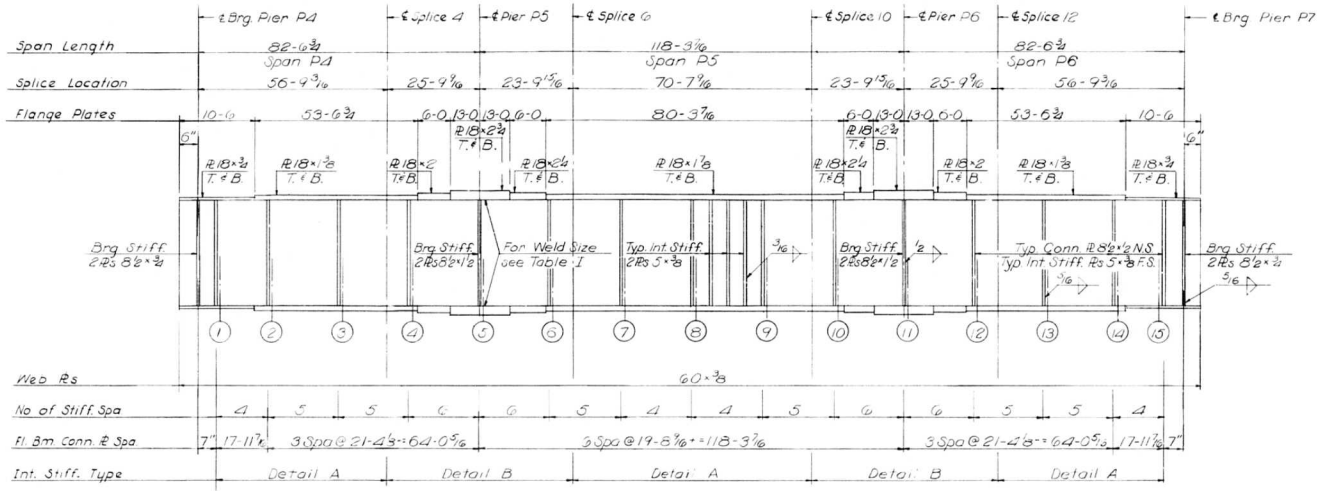
DESIGNED BY R.M.R.
DRAWN BY W.C.H.
CHECKED BY T.T.
APPROVED BY R.M.R.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

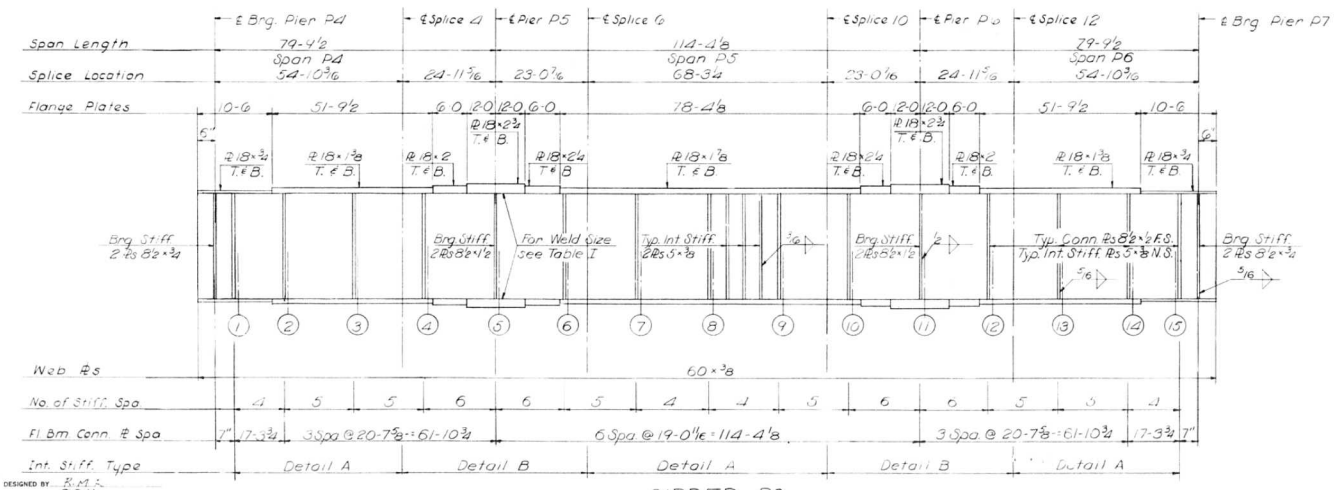
STRINGER SHIMS
SPANS P4 THRU P6
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF8E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
306 OF 526



GIRDER P1
SPANS P4 thru P6



GIRDER P2
SPANS P4 thru P6

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			247	177
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sheet No. 304.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350.

DESIGNED BY K.M.F.
DRAWN BY BGH
CHECKED BY A.T.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS P1 AND P2
SPANS P4 THRU P6

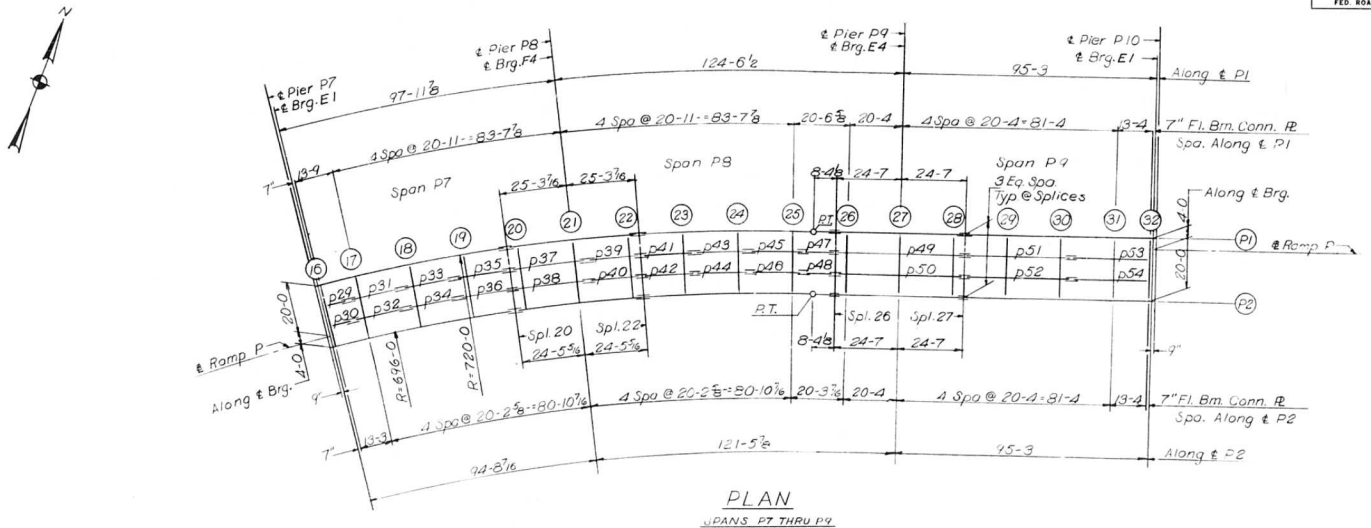
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
307 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70	82-3HVF&E-1	ST. CLAIR	247	178
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS P7 THRU P9

ELEVATION TOP OF GIRDER WEB

		GIR. P1	GIR. P2	DIFF.
CL. BRG.		470.931	469.011	1.920
FLOOR BEAM	16	470.921	469.001	1.920
FLOOR BEAM	17	470.680	468.760	1.920
FLOOR BEAM	18	470.313	468.393	1.920
FLOOR BEAM	19	469.946	468.026	1.920
SPLICE	20	469.655	467.735	1.920
FLOOR BEAM	20	469.551	467.631	1.920
FLOOR BEAM	21	469.051	467.131	1.920
FLOOR BEAM	22	468.550	466.630	1.920
SPLICE	22	468.446	466.526	1.920
FLOOR BEAM	23	467.812	466.049	1.763
FLOOR BEAM	24	467.010	465.446	1.564
FLOOR BEAM	25	466.209	464.843	1.366
SPLICE	26	465.584	464.364	1.220
FLOOR BEAM	26	465.397	464.208	1.189
FLOOR BEAM	27	464.504	463.462	1.042
FLOOR BEAM	28	463.611	462.715	.896
SPLICE	27	463.424	462.559	.865
FLOOR BEAM	29	462.684	461.935	.749
FLOOR BEAM	30	461.749	461.146	.603
FLOOR BEAM	31	460.814	460.357	.456
FLOOR BEAM	32	460.200	459.840	.360
CL. BRG.		460.173	459.817	.356

Notes:

Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate. See sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	375,830

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS P7 THRU P9

POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 308 OF 526

DESIGNED BY [illegible]
DRAWN BY D.C.H.
CHECKED BY [illegible]
APPROVED BY [illegible]

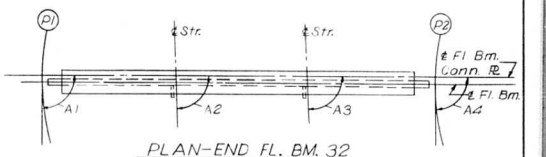
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVFBE-1	ST. CLAIR	247	179
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

STRINGER DIMENSIONS

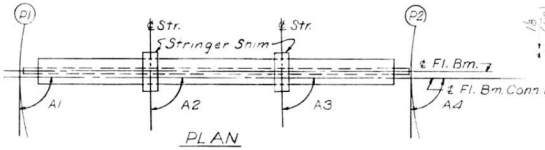
STR.	L	S1	S2	S3	S4	B1	B2
29	9'-3 1/8"	○	○	○	○	90°28.48"	90°22.22"
30	9 1 11/16	○	↓	↑	○	90.28.50	90.22.19
31	20 8 3/16	4 3 7/8			16 4 5/16	90.49.56	90.49.56
32	20 5 3/8	4 3 5/16			16 2 1/16	90.49.56	90.49.56
33	20 8 3/16	4 3 7/8			16 4 5/16	90.49.56	90.49.56
34	20 5 3/8	4 3 5/16			16 2 1/16	90.49.56	90.49.56
35	20 8 3/16	4 3 7/8			16 4 5/16	90.49.56	90.49.56
36	20 5 3/8	4 3 5/16	○		16 2 1/16	90.49.56	90.49.56
37	29 3 7/8	4 3 7/8	20 8 1/8		4 3 7/8	91.10.48	91.10.48
38	28 11 15/16	4 3 5/16	20 5 3/8		4 3 5/16	91.10.48	91.10.48
39	20 8 3/16	16 4 5/16	○		4 3 7/8	90.49.56	90.49.56
40	20 5 3/8	16 2 1/16	↓		4 3 5/16	90.49.56	90.49.56
41	20 8 3/16	16 4 5/16			4 3 7/8	90.49.56	90.49.56
42	20 5 3/8	16 2 1/16			4 3 5/16	90.49.56	90.49.56
43	20 8 3/16	16 4 5/16			4 3 7/8	90.49.56	90.49.56
44	20 5 3/8	16 2 1/16			4 3 5/16	90.49.56	90.49.56
45	20 8 3/16	16 4 5/16			4 3 7/8	90.49.56	90.49.56
46	20 5 3/8	16 2 1/16			4 3 5/16	90.49.56	90.49.56
47	11 10 3/4	○	↓	↓	○	90.14.36	90.02.34
48	11 10 1/4	○	○	○	○	90.14.36	90.02.32
49	49 2	4 3	20 4	20 4	4 3	90.00.00	90.00.00
50	49 2	4 3	20 4	20 4	4 3	90.00.00	90.00.00
51	40 8	16 1	20 4	↓	4 3	90.00.00	90.00.00
52	40 8	16 1	20 4		4 3	90.00.00	90.00.00
53	29 5	16 1	○	↓	13 4	90.00.00	90.00.00
54	29 5	16 1	○	○	13 4	90.00.00	90.00.00

FLOOR BEAM DIMENSIONS

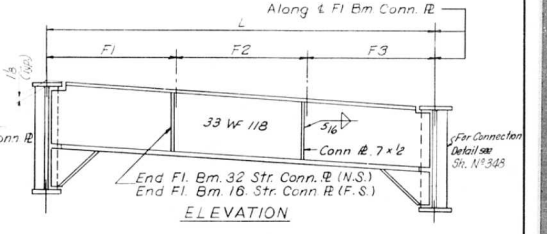
FL. BM.	L	F1	F2	F3	A1	A2	A3	A4
16	24'—0"	8'—0"	8'—0"	8'—0"	90°06.22"	90°28.48"	90°28.50"	90°06.35"
17	24	8 5/8	8	7 11 7/16	90.00.00	90.29.03	90.29.03	90.00.00
18	24	8 5/8	8	7 11 7/16	90.00.00	90.29.03	90.29.03	90.00.00
19	24	8 5/8	8	7 11 7/16	90.00.00	90.29.03	90.29.03	90.00.00
20	24	8 15/16	8	7 11 1/8	90.00.00	90.49.56	90.49.56	90.00.00
21	24	8 15/16	8	7 11 1/8	90.00.00	89.10.04	89.10.04	90.00.00
22	24	8 5/8	8	7 11 7/16	90.00.00	89.30.57	89.30.57	90.00.00
23	24	8 5/8	8	7 11 7/16	90.00.00	89.30.57	89.30.57	90.00.00
24	24	8 5/8	8	7 11 7/16	90.00.00	89.30.57	89.30.57	90.00.00
25	24	8 5/8	8	7 11 7/16	90.00.00	89.30.57	89.30.57	90.00.00
26	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
27	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
28	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
29	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
30	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
31	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
32	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00



PLAN-END FL. BM. 32

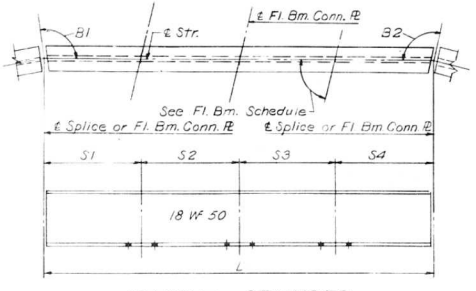


PLAN

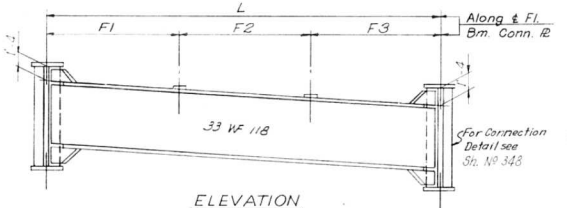


ELEVATION

END FLOOR BEAM 16 AND 32

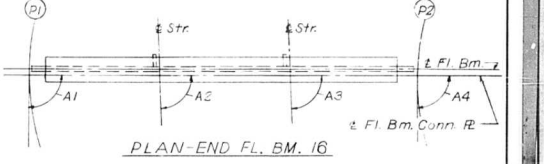


TYPICAL STRINGER



ELEVATION

INTERIOR FLOOR BEAM 17 THRU 31



PLAN-END FL. BM. 16

Note:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16". All dimensions are in the horizontal plane.
For Connection Plate Detail see Sh. No 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS P7 THRU P9
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 309 OF 526

DESIGNED BY R.A.R.
DRAWN BY D.C.H.
CHECKED BY A.T.
APPROVED BY R.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF&E-I	ST. CLAIR	247	180
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 17 THRU 19	T1	T2	T3	T4
STR. 29 THRU 36	15/16	1 9/16	9/16	1 3/16

FLOOR BEAM 20 THRU 22	T1	T2	T3	T4
STR. 37 THRU 40	1	1 5/8	1/2	1 1/8

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
41	1 3/16	1 3/4	3/8	15/16
42	1 1/8	1 11/16	7/16	1

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
43	1 3/16	1 11/16	7/16	15/16
44	1 3/16	1 11/16	7/16	15/16

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
45	1 1/4	1 11/16	7/16	7/8
46	1 3/16	1 5/8	1/2	15/16

FLOOR BEAM 26	T1	T2	T3	T4
STR.				
49	1 5/16	1 11/16	7/16	13/16
50	1 5/16	1 11/16	7/16	13/16

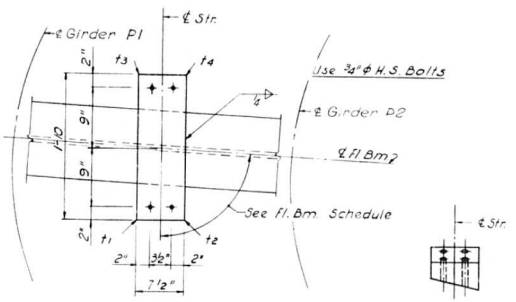
FLOOR BEAM 27	T1	T2	T3	T4
STR.				
49	1 3/8	1 11/16	7/16	3/4
50	1 5/16	1 5/8	1/2	13/16

FLOOR BEAM 28	T1	T2	T3	T4
STR.				
49	1 3/8	1 11/16	7/16	3/4
50	1 3/8	1 5/8	1/2	3/4

FLOOR BEAM 29	T1	T2	T3	T4
STR.				
51	1 7/16	1 11/16	7/16	11/16
52	1 3/8	1 5/8	1/2	3/4

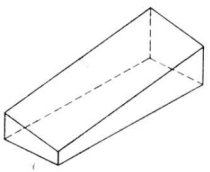
FLOOR BEAM 30	T1	T2	T3	T4
STR.				
51	1 7/16	1 5/8	1/2	11/16
52	1 7/16	1 5/8	1/2	11/16

FLOOR BEAM 31	T1	T2	T3	T4
STR.				
53	1 1/2	1 5/8	1/2	5/8
54	1 7/16	1 9/16	9/16	11/16

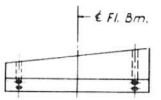


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY E.A.F.
DRAWN BY C.H.
CHECKED BY A.C.
APPROVED BY R.C.

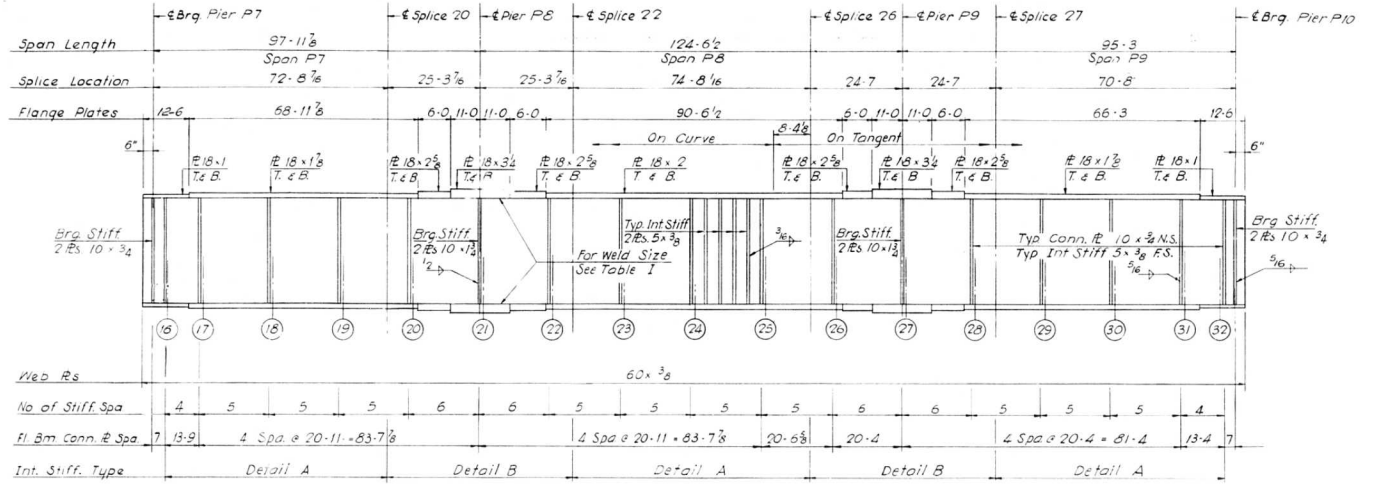
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS P7 THRU P9
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-I

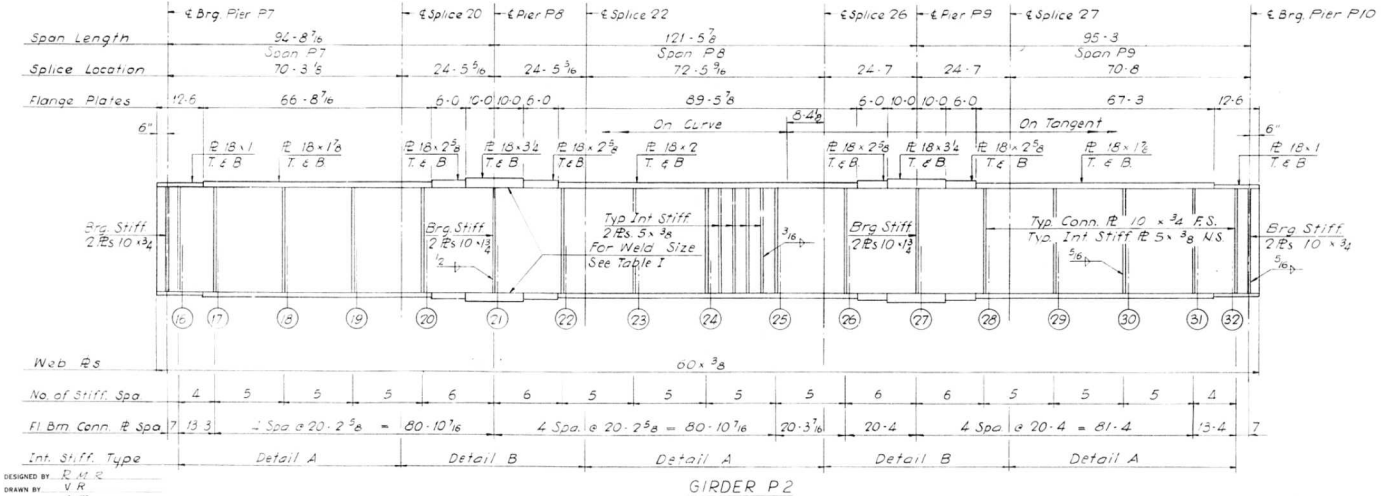
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 310 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.–70	82-3HVF & E-1	ST. CLAIR	247	181
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER P1
Spans P7 thru P9



GIRDER P2
Spans P7 thru P9

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web See Sheet No. 308
All Bearing Stiffeners and Connection Plates to be vertical
For Splice, Stiffener, Connection Plate Details and Table I See Sheet No. 348, 349, 350.

DESIGNED BY R.M.R.
DRAWN BY V.R.
CHECKED BY S.T.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS P1 AND P2
SPANS P7 THRU P9

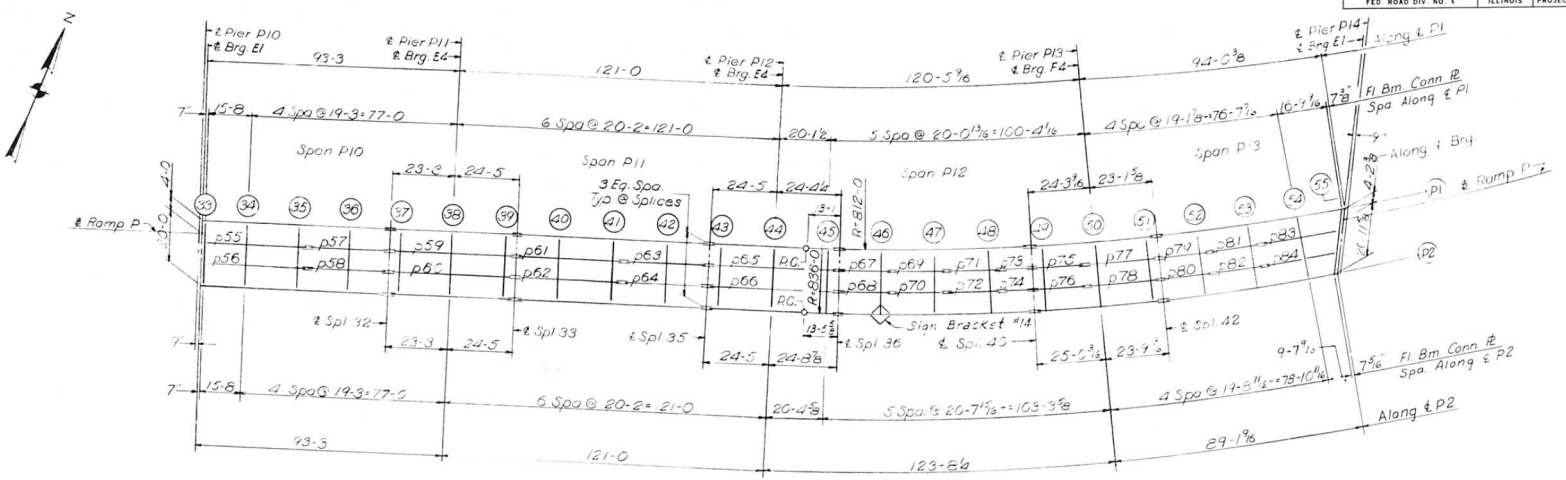
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 311 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVF B.E-1	ST CLAIR	247	182
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS P10 THRU P13

ELEVATION TOP OF GIRDER WEB

	GIR. P1	GIR. P2	DIFF.
CL. BRG.	460.104	459.759	.344
FLOOR BEAM 33	460.078	459.737	.340
FLOOR BEAM 34	459.357	459.129	.228
FLOOR BEAM 35	458.47.	458.382	.088
FLOOR BEAM 36	457.586	457.635	.049
SPLICE 32	456.884	457.043	.159
FLOOR BEAM 37	456.707	456.895	.188
FLOOR BEAM 38	455.855	456.181	.326
FLOOR BEAM 39	454.961	455.433	.472
SPLICE 33	454.773	455.276	.503
FLOOR BEAM 40	454.172	454.789	.617
FLOOR BEAM 41	453.409	454.172	.763
FLOOR BEAM 42	452.647	453.555	.907
SPLICE 35	452.045	453.057	1.012
FLOOR BEAM 43	451.910	452.967	1.057
FLOOR BEAM 44	451.268	452.490	1.222

	GIR. P1	GIR. P2	DIFF.
FLOOR BEAM 45	450.628	452.007	1.379
SPLICE 36	450.493	451.904	1.411
FLOOR BEAM 46	450.105	451.648	1.543
FLOOR BEAM 47	449.613	451.279	1.666
FLOOR BEAM 48	449.122	450.729	1.607
SPLICE 40	448.734	450.654	1.920
FLOOR BEAM 49	448.683	450.603	1.920
FLOOR BEAM 50	448.443	450.363	1.920
FLOOR BEAM 51	448.213	450.133	1.920
SPLICE 42	448.105	450.085	1.920
FLOOR BEAM 52	448.054	449.973	1.919
FLOOR BEAM 53	447.909	449.830	1.921
FLOOR BEAM 54	447.768	449.687	1.919
FLOOR BEAM 55	447.645	449.618	1.973
CL. BRG.	447.641	449.613	1.972

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn Plate
See Sketch Sheet No. 183
For Sign Bracket Detail see Sh No. 360

BILL OF MATERIAL		
*Structural Steel	Lbs.	474,240

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 9620

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS P10 THRU P13
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F A I RT 70 ST CLAIR CO SECTION 82-3HVF BE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

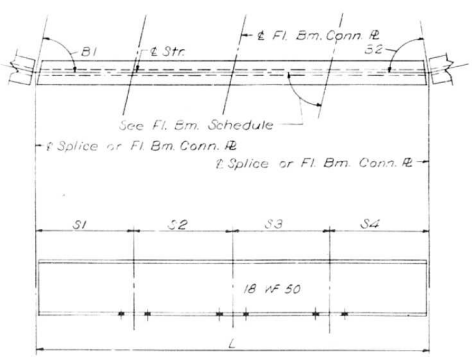
SHEET 312 OF 526

DESIGNED BY R.M.R.
DRAWN BY D.C.H.
CHECKED BY A.T.
APPROVED BY R.S.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF BE1	ST. CLAIR	247	83
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

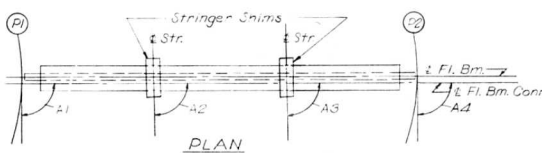
STR.	L	S1	S2	S3	S4	B1	B2
55	38-11"	15'-8"	○	19'-3"	4" — ○	90.00.00"	90.00.00"
56	38 11	15 8	↕	19 3	4	90.00.00	90.00.00
57	30 6	15 3	↕	○	15 3	90.00.00	90.00.00
58	30 6	15 3	○	○	15 3	90.00.00	90.00.00
59	47 8	4	19 3	20 2	4 3	90.00.00	90.00.00
60	47 8	4	19 3	20 2	4 3	90.00.00	90.00.00
61	46 4	15 11	20 2	○	4 3	90.00.00	90.00.00
62	40 4	15 11	20 2	↕	4 3	90.00.00	90.00.00
63	31 10	15 11	○	↕	15 11	90.00.00	90.00.00
64	31 10	15 11	○	○	15 11	90.00.00	90.00.00
65	48 10 3/4	4 3	20 2	20 2 1/2	4 3 1/4	89.59.31	89.17.06
66	49 5/16	4 3	20 2	20 3 9/16	4 3 3/4	89.59.28	89.17.09
67	20 3 3/16	15 11 15/16	○	○	4 3 1/4	89.17.31	89.17.31
68	20 5 9/16	16 1 13/16	↕	↕	4 3 3/4	89.17.31	89.17.31
69	20 3 3/16	15 11 15/16	↕	↕	4 3 1/4	89.17.31	89.17.31
70	20 5 9/16	16 1 13/16	↕	↕	4 3 3/4	89.17.31	89.17.31
71	20 3 3/16	15 11 15/16	↕	↕	4 3 1/4	89.17.31	89.17.31
72	20 5 9/16	16 1 13/16	↕	↕	4 3 3/4	89.17.31	89.17.31
73	11 8 11/16	○	↕	↕	○	89.35.25	89.35.25
74	11 10 1/16	○	↕	↕	○	89.35.25	89.35.25
75	20 3 3/16	4 3 1/4	↕	↕	15 11 15/16	89.17.31	89.17.31
76	20 5 9/16	4 3 3/4	○	↕	16 1 13/16	89.17.31	89.17.31
77	27 7 5/8	4 3 1/4	19 4 1/8	↕	4 1/4	89.00.04	89.00.04
78	27 10 13/16	4 3 3/4	19 6 3/8	↕	4 11/16	89.00.04	89.00.04
79	19 4 1/8	15 3 7/8	○	↕	4 1/4	89.19.27	89.19.27
80	19 6 3/8	15 5 11/16	↕	↕	4 11/16	89.19.27	89.19.27
81	19 4 1/8	15 3 7/8	↕	↕	4 1/4	89.19.27	89.19.27
82	19 6 3/8	15 5 11/16	↕	↕	4 11/16	89.19.27	89.19.27
83	29 8 3/4	15 3 7/8	↕	↕	14 4 7/8	88.56.47	126.31.59
84	27 5 7/8	15 5 11/16	○	○	12 3/16	89.01.58	126.26.47



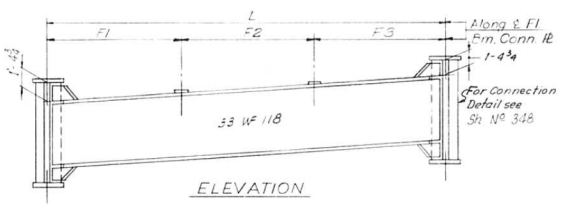
TYPICAL STRINGER

FLOOR BEAM DIMENSIONS

FL. BM.	L	F1	F2	F3	A1	A2	A3	A4
33	24" — ○"	8" — ○"	8" — ○"	8" — ○"	90.00.00"	90.00.00"	90.00.00"	90.00.00"
34	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
35	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
36	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
37	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
38	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
39	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
40	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
41	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
42	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
43	24	7 11 7/8	8	8 1/8	90.00.00	89.59.31	89.59.28	90.00.00
44	24	7 11 3/8	8	8 5/8	90.00.00	89.59.31	89.59.28	90.00.00
45	24	7 11 7/16	8	8 9/16	90.00.00	90.30.00	90.29.57	90.00.00
46	24	7 11 1/2	8	8 1/2	90.00.00	90.24.35	90.24.35	90.00.00
47	24	7 11 1/2	8	8 1/2	90.00.00	90.24.35	90.24.35	90.00.00
48	24	7 11 1/2	8	8 1/2	90.00.00	90.24.35	90.24.35	90.00.00
49	24	7 11 1/2	8	8 1/2	90.00.00	89.35.25	89.35.25	90.00.00
50	24	7 11 1/4	8	8 3/4	90.00.00	89.19.59	89.19.59	90.00.00
51	24	7 11 5/16	8	8 11/16	90.00.00	90.41.05	90.41.05	90.00.00
52	24	7 11 9/16	8	8 7/16	90.00.00	90.23.42	90.23.42	90.00.00
53	24	7 11 9/16	8	8 7/16	90.00.00	90.23.42	90.23.42	90.00.00
54	24	7 10 5/16	8 1/4	8 1 3/8	90.00.00	90.01.00	90.01.13	90.00.00
55	25 1 15/16	8 4 5/8	8 4 5/8	8 4 5/8	72.15.53	73.28.01	73.33.13	72.47.24

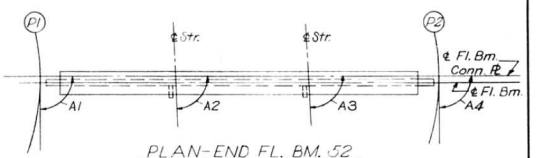


PLAN

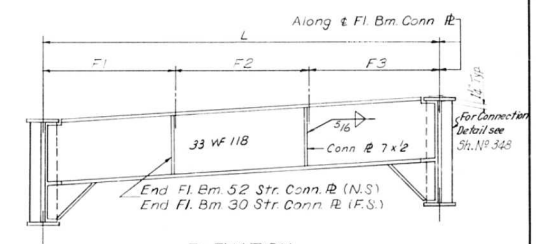


ELEVATION

INTERIOR FLOOR BEAM 31 THRU 51

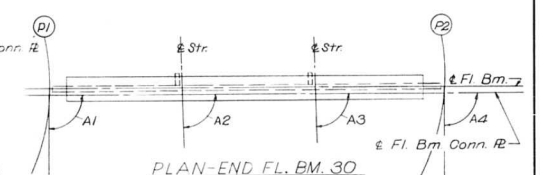


PLAN-END FL. BM. 52



ELEVATION

END FLOOR BEAM 30 AND 52



PLAN-END FL. BM. 30

Notes:

Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16". All dimensions are in the horizontal plane. For Connection Plate Detail see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM SCHEDULE
SPANS P10 THRU P13
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I RT. 70 ST. CLAIR CO. SECTION 82-3HVF BE1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 313 OF 526

DESIGNED BY R.M.S.
DRAWN BY D.C.H.
CHECKED BY A.T.
APPROVED BY R.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	184
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 34	T1	T2	T3	T4
STR.				
55	1 3/8	1 7/16	7/16	1/2
56	1 3/8	1 7/16	7/16	1/2

FLOOR BEAM 35	T1	T2	T3	T4
STR.				
55	1 3/8	1 7/16	7/16	1/2
56	1 3/8	1 3/8	[illegible]	1/2

FLOOR BEAM 36	T1	T2	T3	T4
STR.				
57	1 7/16	1 7/16	7/16	7/16
58	1 3/8	1 3/8	1/2	1/2

FLOOR BEAM 37	T1	T2	T3	T4
STR.				
59	1 7/16	1 3/8	1/2	7/16
60	1 3/8	1 5/16	9/16	1/2

FLOOR BEAM 38	T1	T2	T3	T4
STR.				
59	1 7/16	1 3/8	1/2	7/16
60	1 7/16	1 5/16	9/16	7/16

FLOOR BEAM 39	T1	T2	T3	T4
STR.				
59	1 1/2	1 5/16	9/16	3/8
60	1 7/16	1 5/16	9/16	7/16

FLOOR BEAM 40	T1	T2	T3	T4
STR.				
61	1 7/16	1 1/4	5/8	7/16
62	1 3/8	1 3/16	11/16	1/2

FLOOR BEAM 41	T1	T2	T3	T4
STR.				
61	1 7/16	1 3/16	11/16	7/16
62	1 7/16	1 3/16	11/16	7/16

FLOOR BEAM 42	T1	T2	T3	T4
STR.				
63	1 7/16	1 3/16	11/16	7/16
64	1 7/16	1 3/16	11/16	7/16

FLOOR BEAM 43	T1	T2	T3	T4
STR.				
65	1 7/16	1 1/16	13/16	7/16
66	1 3/8	1 1/16	13/16	1/2

FLOOR BEAM 44	T1	T2	T3	T4
STR.				
65	1 7/16	1 1/16	13/16	7/16
66	1 7/16	1 1/16	13/16	7/16

FLOOR BEAM 45	T1	T2	T3	T4
STR.				
65	1 1/2	1 1/16	13/16	3/8
66	1 7/16	1	7/8	7/16

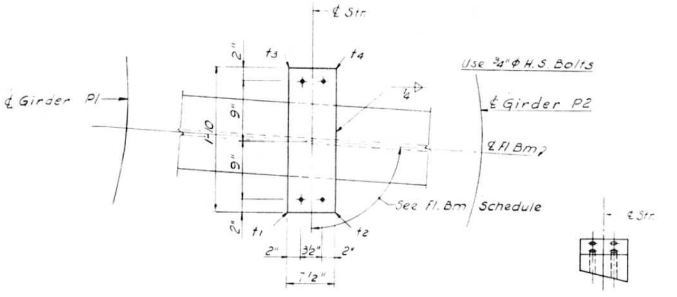
FLOOR BEAM 46	T1	T2	T3	T4
STR.				
67	1 7/16	15/16	15/16	7/16
68	1 3/8	15/16	15/16	1/2

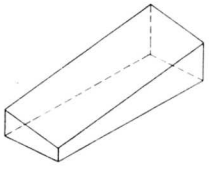
FLOOR BEAM 47	T1	T2	T3	T4
STR.				
69	1 7/16	15/16	15/16	7/16
70	1 7/16	7/8	1	7/16

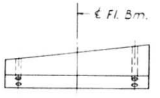
FLOOR BEAM 48	T1	T2	T3	T4
STR.				
71	1 7/16	7/8	1	7/16
72	1 7/16	7/8	1	7/16

FLOOR BEAM 49 THRU 51	T1	T2	T3	T4
STR. 75 THRU 78	1 3/8	3/4	1 1/8	1/2

FLOOR BEAM 52 THRU 54	T1	T2	T3	T4
STR. 79 THRU 84	1 5/16	11/16	1 3/16	9/16




ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

DESIGNED BY R.M.R.
DRAWN BY D.C.H.
CHECKED BY [illegible]
APPROVED BY [illegible]

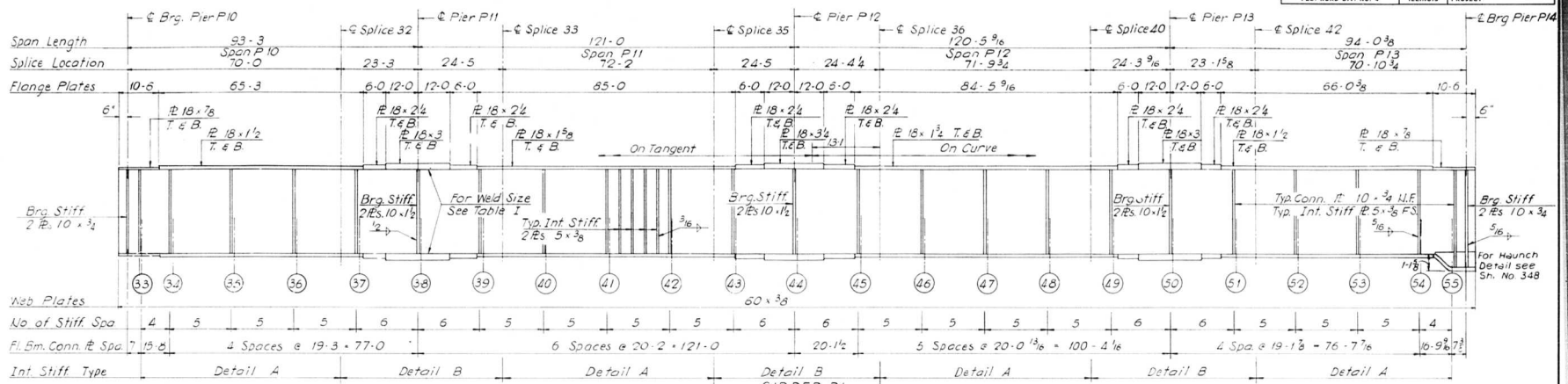
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS P10 THRU P13
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

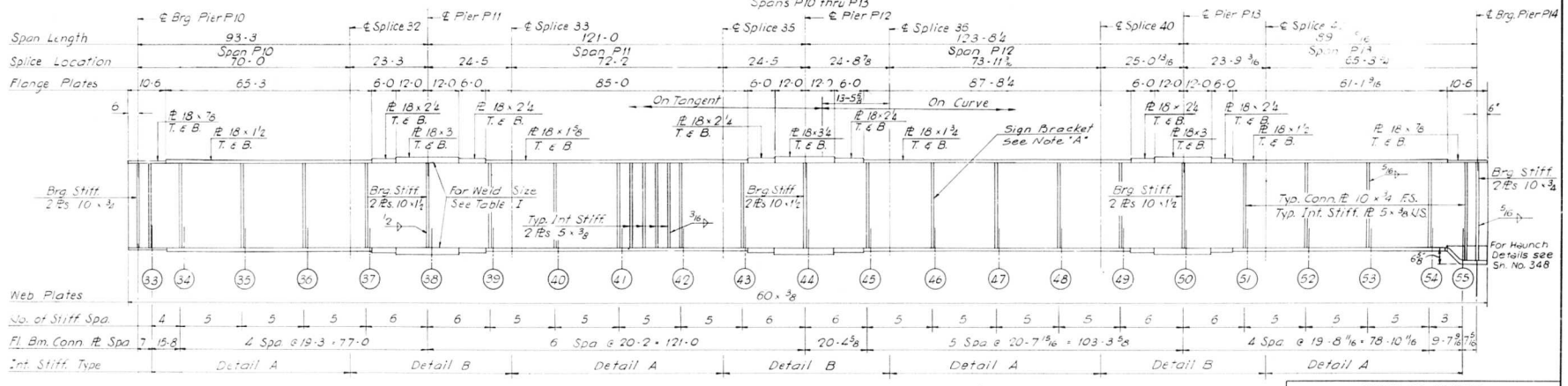
SHEET 314 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	185
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER P1

Spans P10 thru P13



GIRDER P2

Spans P10 thru P13

Note "A"
Intermediate Stiffeners Should be moved if necessary to clear sign bracket Connection plates.

Notes:
All Longitudinal Dimensions Shown are given along ℄ of Web. See Sheet No. 312
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener, Connection Plate Details and Table I see Sheet No. 348, 349, 350
For Sign Bracket Detail See Sheet No. 360

DESIGNED BY R.M.R.
DRAWN BY V.R.
CHECKED BY A.C.
APPROVED BY F.A.

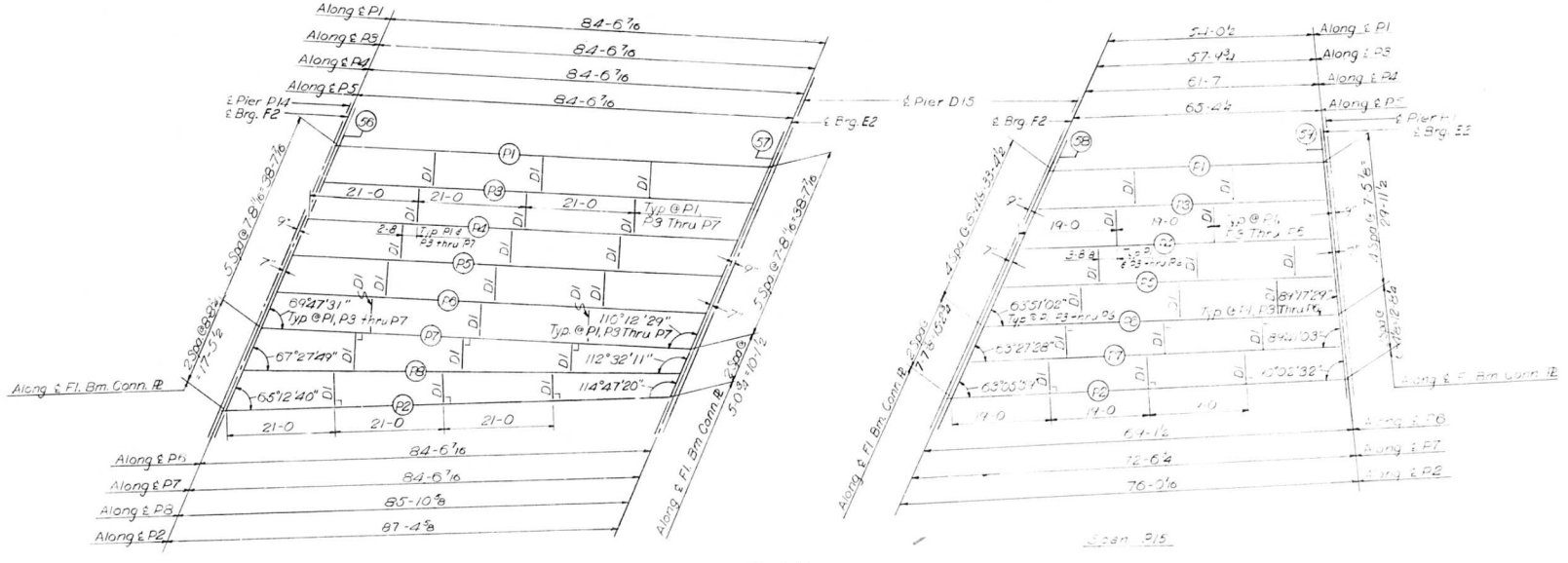
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS P1 AND P2
SPANS P10 THRU P13
POPLAR STREET BRIDGE APPROACHES
RAMP "P"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 315 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 70	82-3HVF & E-1	ST CLAIR	247	186
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS P14 AND P15

ELEVATION TOP OF FLANGE

	STR. P1	STR. P2	DIFF.
CL. BRG.	447.835	451.216	3.381
FLOOR BEAM 56	447.831	451.214	3.383
FLOOR BEAM 57	447.319	450.975	3.656
CL. BRG.	447.316	450.973	3.657

ELEVATION TOP OF FLANGE

	STR. P1	STR. P2	DIFF.
CL. BRG.	447.306	450.961	3.655
FLOOR BEAM 58	447.299	450.954	3.655
FLOOR BEAM 59	446.726	450.138	3.412
CL. BRG.	446.719	450.132	3.413

BILL OF MATERIAL		
*Structural Steel	Lbs.	320,925

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 7020

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS P14 AND P15
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F A I RT 70 ST CLAIR CO. SECTION 82-3HVFBE-1

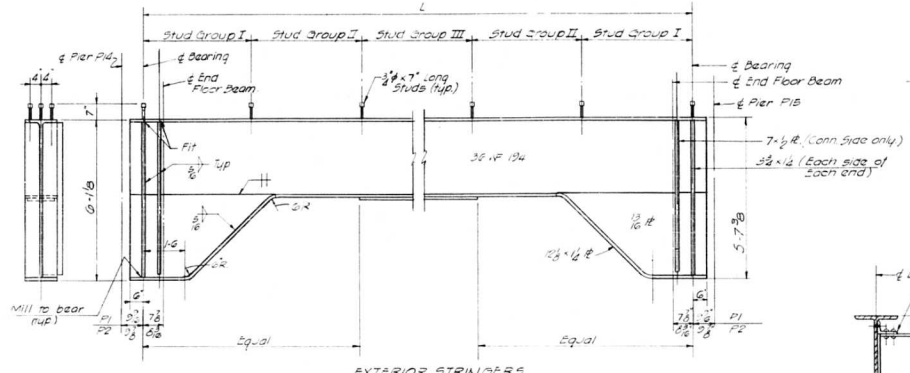
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 316 OF 526

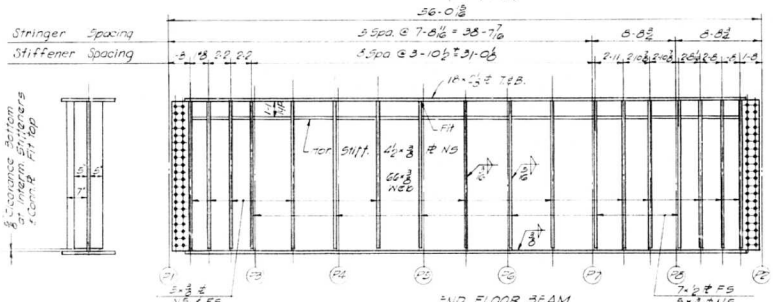
DESIGNED BY R.M.R.
DRAWN BY D.G.H.
CHECKED BY
APPROVED BY

Rev. S. F. Steel from 326,130# to 320,925# 6-3-66. N.R.F.

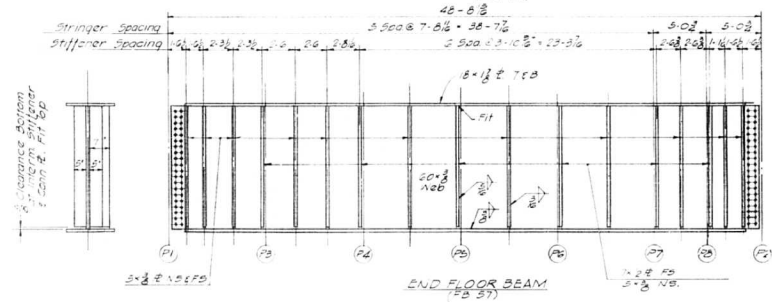
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	187
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



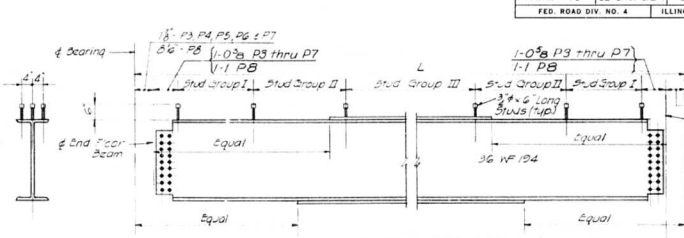
EXTERIOR STRINGERS
(P1 & P2)

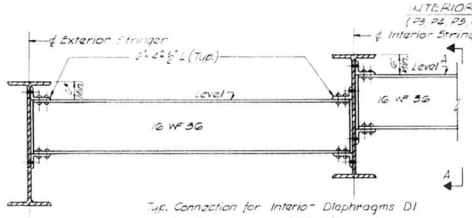


END FLOOR BEAM
(FB 56)

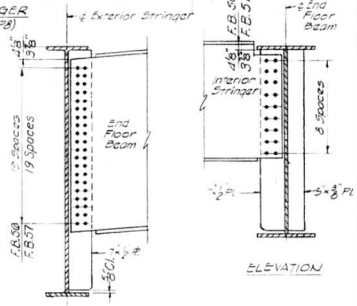


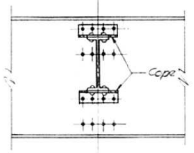
END FLOOR BEAM
(FB 57)



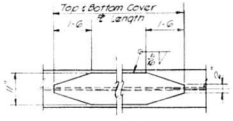


DIAPHRAGM DETAILS



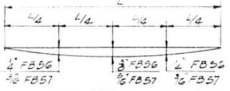


SECTION A-A

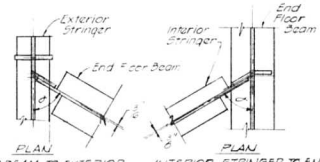


COVER PLATE DETAIL

NOTE Clip all Stiffeners and Connection plates 3/4" at corners to clear welding of flange to web and to clear beam fillets.



DEAD LOAD DEFLECTION DIAGRAMS FOR END FLOOR BEAMS
(Wt of Concrete Only)



END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION

NOTE For Angle ø See Framing Plan Sheet No. 316

STRINGERS & COVER PLATE LENGTHS - SHEAR CONN. SPACING						
STRINGERS	LENGTH (L)	TOP COVER PL	BOTTOM COVER PL	STUD GROUP I	STUD GROUP II	STUD GROUP III
P1	84-6 1/16	——	1/4 x 12 x 67-6	34@ 9 1/2	30@ 7 1/2	29@ 10 1/2"
P3	83-6 1/16	——	1/4 x 8 x 67-6	34@ 9 1/2	30@ 7 1/2	18@ 6 1/2"
P4	84-6 1/16	——	1/4 x 6 x 67-6	34@ 9 1/2	30@ 7 1/2	18@ 10 1/2"
P5	84-6 1/16	1/4 x 24 x 47-3	1/4 x 14 x 67-6	34@ 9 1/2	30@ 7 1/2	18@ 10 1/2"
P6	84-6 1/16	1/4 x 24 x 47-3	1/4 x 14 x 67-6	34@ 9 1/2	30@ 7 1/2	18@ 10 1/2"
P7	84-6 1/16	——	1/4 x 8 x 67-6	34@ 9 1/2	30@ 7 1/2	18@ 10 1/2"
P8	85-10 3/8	——	1/4 x 4 x 65-3	32@ 9 1/2	24@ 10 1/2	9@ 11"
P2	87-4 3/8	——	1/4 x 4 x 65-3	32@ 9 1/2	24@ 10 1/2	24@ 1 1/2"

NOTES

For Framing Plan see Sheet No. 316

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN P14

POPLAR STREET BRIDGE APPROACHES
RAMP "P"

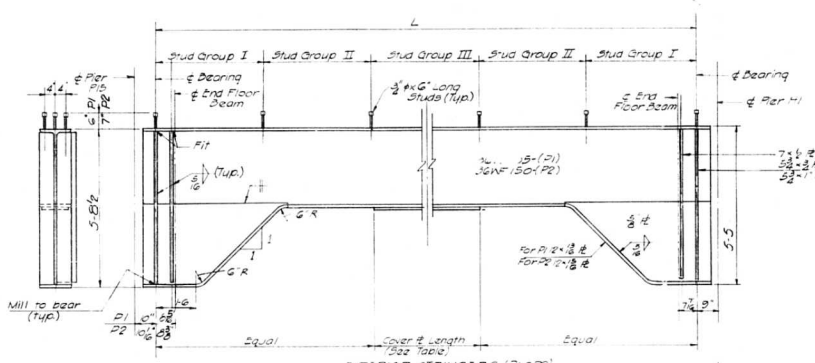
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

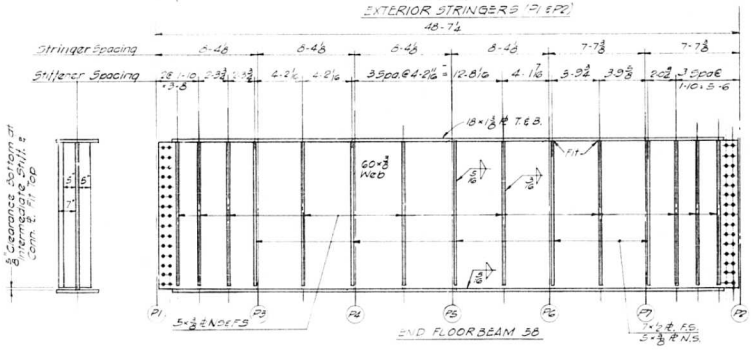
SHEET 317 OF 525

DESIGNED BY H.J.
DRAWN BY T.
CHECKED BY L.W.
APPROVED BY

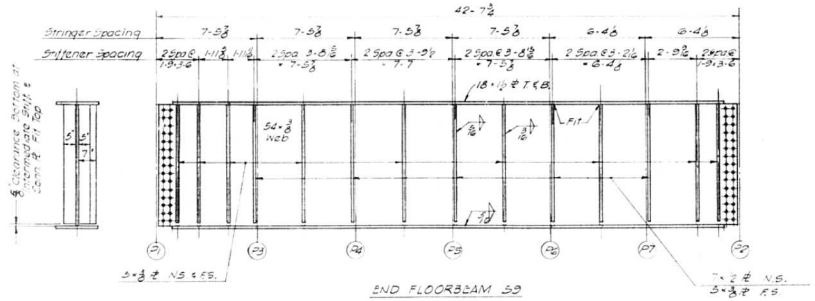
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF BE-1	ST. CLAIR	247	188
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



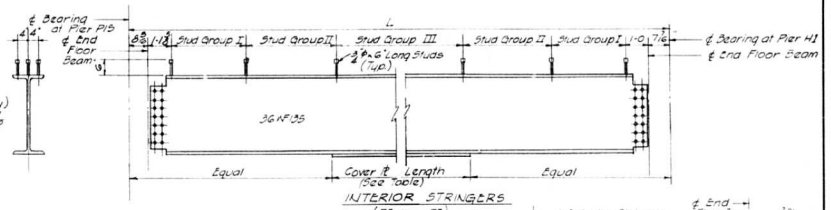
EXTERIOR STRINGERS (P1 & P2)



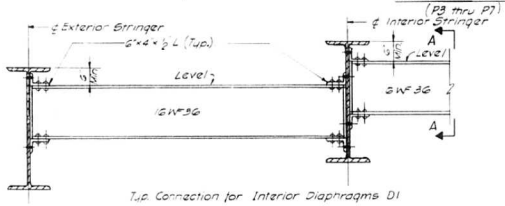
END FLOOR BEAM 58



END FLOOR BEAM 59

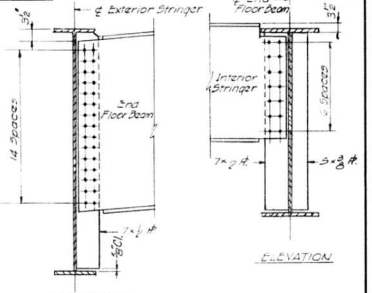


INTERIOR STRINGERS



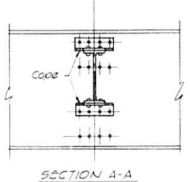
Typ. Connection for Interior Diaphragms (P2 thru P7)

DIAPHRAGM DETAILS

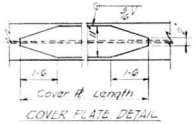


ELEVATION

ELEVATION

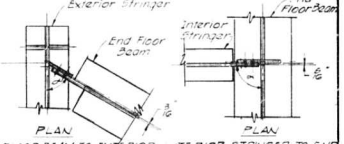


SECTION A-A



COVER PLATE DETAIL

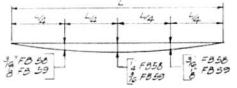
NOTE: Cut off Stiffeners and Connection Plates 1" x 1" at corners to clear welding of flange to web and to clear beam fillets.



END FLOOR BEAM TO EXTERIOR STRINGER CONNECTION

INTERIOR STRINGER TO END FLOOR BEAM CONNECTION

NOTE: For Angle ⌀ Size Framing Plan Sheet No. 316



DEAD LOAD DEFLECTION DIAGRAM FOR END FLOOR BEAMS (WT of Concrete Only)

STRINGERS & COVER ℄ LENGTHS & SHEAR CONNECTOR SPACING					
STRINGER	LENGTH	COVER PLATE	STUD GROUP I	STUD GROUP II	STUD GROUP III
P1	56'-0"	11" x ½" x 36'-6"	28 @ 6.5"	16 @ 7¼"	13 @ 10½"
P2	57'-9½"	11" x ½" x 40'-0"	28 @ 6.5"	16 @ 7¼"	14 @ 10½" +
P4	61'-7"	11" x ⅝" x 45'-3"	30 @ 6.5"	18 @ 7¼"	18 @ 10½" +
P5	55'-4½"	11" x 1" x 51'-0"	32 @ 6.5"	20 @ 7¼"	13 @ 10½" +
P6	59'-1½"	11" x ⅝" x 55'-0"	32 @ 6.5"	22 @ 7¼"	14 @ 10½" +
P7	70'-6½"	11" x ⅝" x 67'-3"	32 @ 5½"	23 @ 7½"	11 @ 11½" +
P2	76'-0⅛"	11" x ½" x 56'-6"	32 @ 5½"	25 @ 7½"	16 @ 11½" +

NOTES

for Framing Plan See Sheet No. 316

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL DETAILS

SPAN P15

POPLAR STREET BRIDGE APPROACHES

RAMP "P"

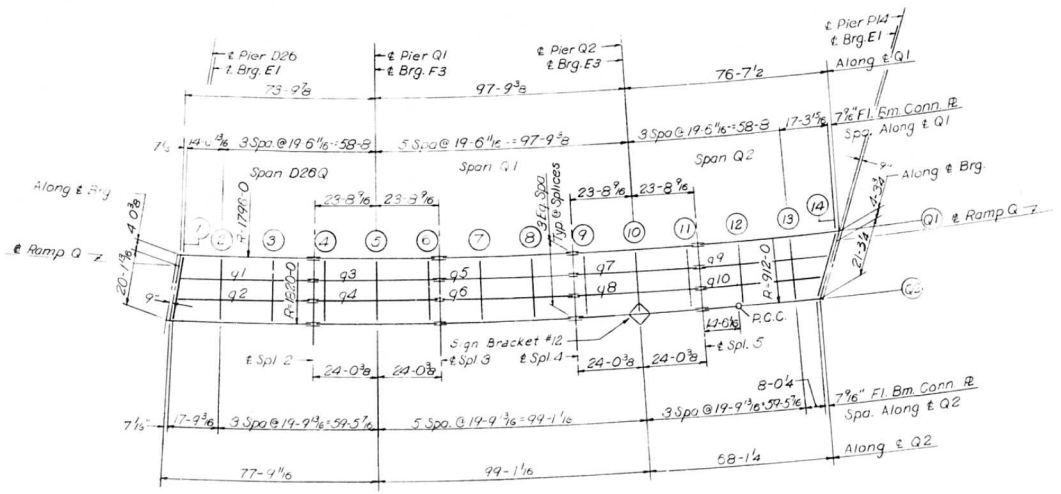
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 318 OF 526

DESIGNED BY HJ
DRAWN BY
CHECKED BY LW
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. – 70	82-3HVFBE-1	ST. CLAIR	247	189
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS D26Q THRU Q2

ELEVATION TOP OF GIRDER WEB

		GIR. Q1	GIR. Q2	DIFF.
CL. BRG.		445.861	447.732	1.871
FLOOR BEAM	1	445.871	447.741	1.870
FLOOR BEAM	2	446.107	448.026	1.919
FLOOR BEAM	3	446.424	448.343	1.919
SPLICE	2	446.673	448.593	1.920
FLOOR BEAM	4	446.740	448.660	1.920
FLOOR BEAM	5	447.056	448.976	1.920
FLOOR BEAM	6	447.372	449.292	1.920
SPLICE	3	447.439	449.359	1.920
FLOOR BEAM	7	447.684	449.604	1.920
FLOOR BEAM	8	447.994	449.914	1.920
SPLICE	4	448.239	450.159	1.920
FLOOR BEAM	9	448.289	450.209	1.920
FLOOR BEAM	10	448.521	450.441	1.920
FLOOR BEAM	11	448.753	450.673	1.920
SPLICE	5	448.803	450.723	1.920
FLOOR BEAM	12	448.901	450.823	1.922
FLOOR BEAM	13	449.027	450.949	1.922
FLOOR BEAM	14	449.138	451.001	1.863
CL. BRG.		449.142	451.005	1.863

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate
See Sketch Sheet No. 183
For Sign Bracket Detail see Sh No 360.

BILL OF MATERIAL

*Structural Steel	Lbs.	212860

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel
Est. Wt. 6320 Lbs.

DESIGNED BY F.K.S.
DRAWN BY J.C.H.
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN
SPANS D26Q, Q1, & Q2
POPLAR STREET BRIDGE APPROACHES
RAMP "Q"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

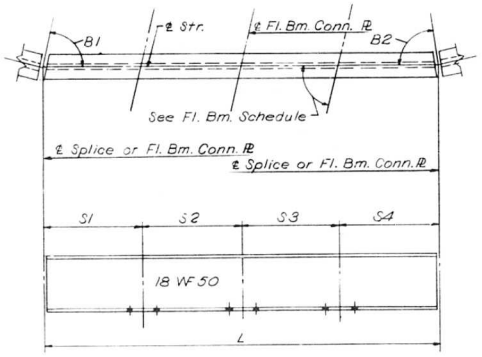
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 319 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I - 70	82-3HVF8E-1	ST. CLAIR	347	190
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

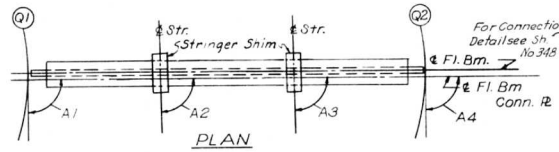
STRG	L	S1	S2	S3	S4	B1	B2
1	50'-8 15/16"	15'-7 5/8"	O	19'-7 11/16"	15'-5 5/8"	82°06'31"	89°11'37"
2	51 11 9/16	16 8 3/8	O	19 8 3/4	15 6 7/16	82.06.28	89.10.47
3	47 7 5/8	4 2 1/8	19 7 11/16	19 7 11/16	4 2 1/8	89.14.37	89.14.37
4	47 10 3/16	4 2 5/16	19 8 3/4	19 8 7/4	4 2 5/16	89.14.37	89.14.37
5	50 6 15/16	15 5 5/8	19 7 11/16	O	15 5 5/8	89.11.48	89.11.48
6	50 9 5/8	15 6 7/16	19 8 3/4	O	15 6 7/16	89.11.48	89.11.48
7	47 7 5/8	4 2 1/8	19 7 11/16	19 7 11/16	4 2 1/8	89.14.37	89.14.37
8	47 10 3/16	4 2 5/16	19 8 3/4	19 8 3/4	4 2 5/16	89.14.37	89.14.37
9	49 4	15 5 5/8	19 7 11/16	O	14 2 11/16	89.07.17	11.05.38
10	46 4 5/8	15 6 7/16	19 8 3/4	O	11 1 7/16	89.04.16	11.06.33



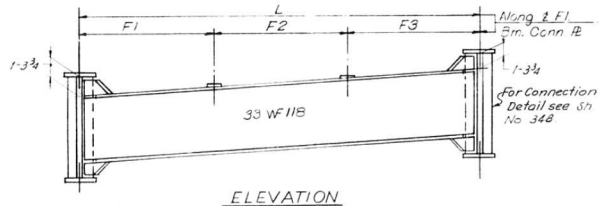
TYPICAL STRINGER

FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24'-2 3/16	8'-0 3/4"	8'-0 3/4"	8'-0 3/4"	82°51.55"	82°05.31"	82°06.28"	82.57.36
2	24	7 10 3/16	7 11 7/8	8 1 15/16	90.00.00	89.41.29	89.42.25	90.00.00
3	24	7 10 3/16	7 11 15/16	8 1 7/8	90.00.00	90.18.55	90.19.51	90.00.00
4	24	7 11 3/8	8	8 5/8	90.00.00	89.22.34	89.22.34	90.00.00
5	24	7 10 1/8	8	8 1 7/8	90.00.00	90.00.00	90.00.00	90.00.00
6	24	7 11 3/8	8	8 5/8	90.00.00	90.37.26	90.37.26	90.00.00
7	24	7 10 3/16	8	8 1 13/16	90.00.00	89.41.17	89.41.17	90.00.00
8	24	7 10 3/16	8	8 1 13/16	90.00.00	90.18.43	90.18.43	90.00.00
9	24	7 11 3/8	8	8 5/8	90.00.00	89.22.34	89.22.34	90.00.00
10	24	7 10 1/8	8	8 1 7/8	90.00.00	90.00.00	90.00.00	90.00.00
11	24	7 11 3/8	8	8 5/8	90.00.00	90.37.26	90.37.26	90.00.00
12	24	7 9 15/16	7 11 13/16	8 2 3/16	90.00.00	89.36.46	89.33.45	89.57.56
13	23 10 9/16	7 9 5/8	7 11 5/8	8 1 5/16	90.00.00	90.14.12	90.11.11	89.20.40
14	25 7 1/16	8 6 3/8	8 6 3/8	8 6 3/8	68.07.06	68.54.28	68.51.27	67.30.42

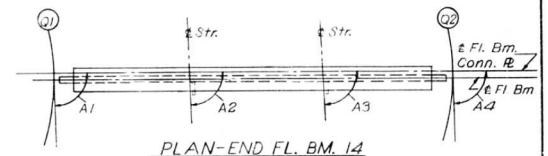


PLAN

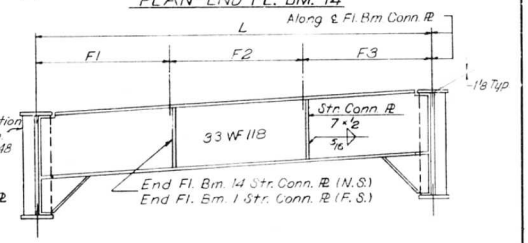


ELEVATION

INTERIOR FLOOR BEAM 2 THRU 13

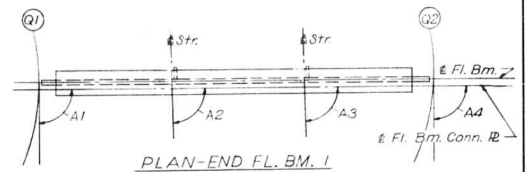


PLAN-END FL. BM. 14



ELEVATION

END FLOOR BEAM 1 AND 14



PLAN-END FL. BM. 1

Notes:
Length L of Stringers and Fl. Bms is correct as given in the table except the increment lengths are given to the nearest 1/16". All dimensions are in the horizontal plane. For Connection Plate Detail see Sheet No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS D26-Q, Q18 Q2
POPLAR STREET BRIDGE APPROACHES
RAMP "Q"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF 8E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 320 of 526

DESIGNED BY S.A.S.
DRAWN BY D.C.H.
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	191
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

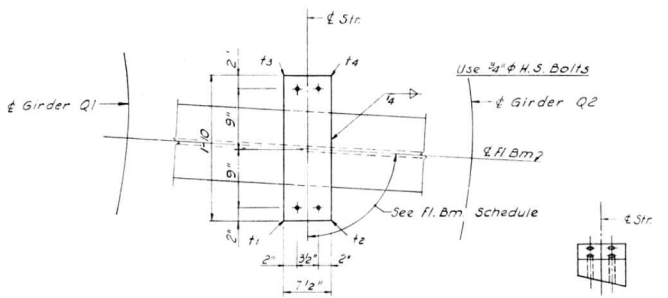
FLOOR BEAM 2 THRU 3	T1	T2	T3	T4
STR. 1 THRU 2	1	7/16	1 5/16	3/4

FLOOR BEAM 4 THRU 6	T1	T2	T3	T4
STR. 3 THRU 4	1	3/8	1 3/8	3/4

FLOOR BEAM 7 THRU 8	T1	T2	T3	T4
STR. 5 THRU 6	1	3/8	1 3/8	3/4

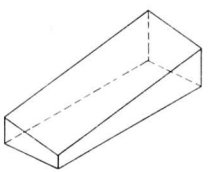
FLOOR BEAM 9 THRU 11	T1	T2	T3	T4
STR. 7 THRU 8	1 1/16	7/16	1 5/16	11/16

FLOOR BEAM 12 THRU 13	T1	T2	T3	T4
STR. 9 THRU 10	1 1/8	1/2	1 1/4	5/8

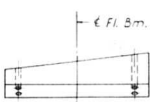


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the table are orientated with the Plan View shown above.

DESIGNED BY R.M.S.
DRAWN BY
CHECKED BY
APPROVED BY

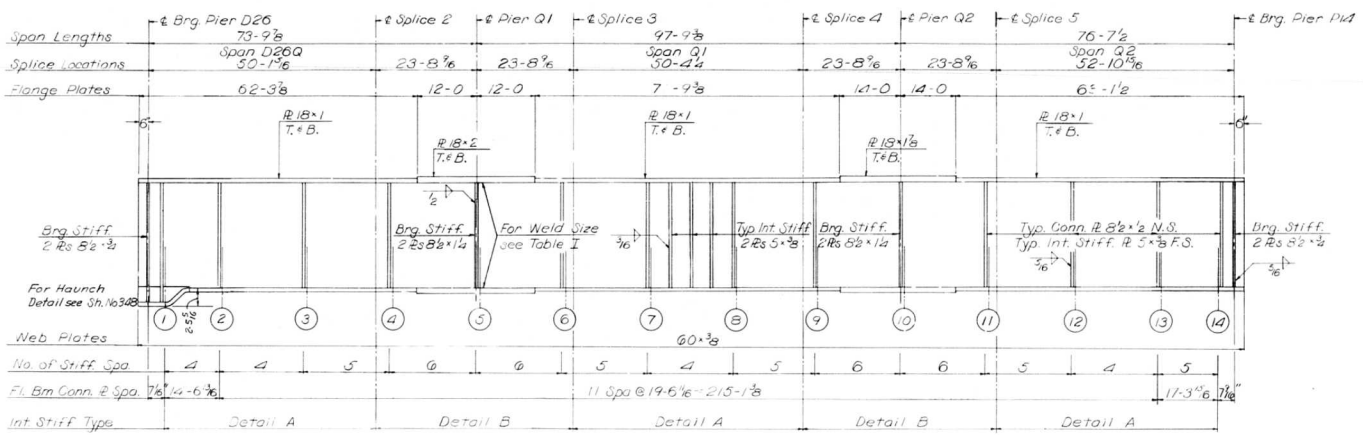
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS
SPANS D26Q THRU Q2
POPLAR STREET BRIDGE APPROACHES
RAMP "Q"
F.A.I. RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

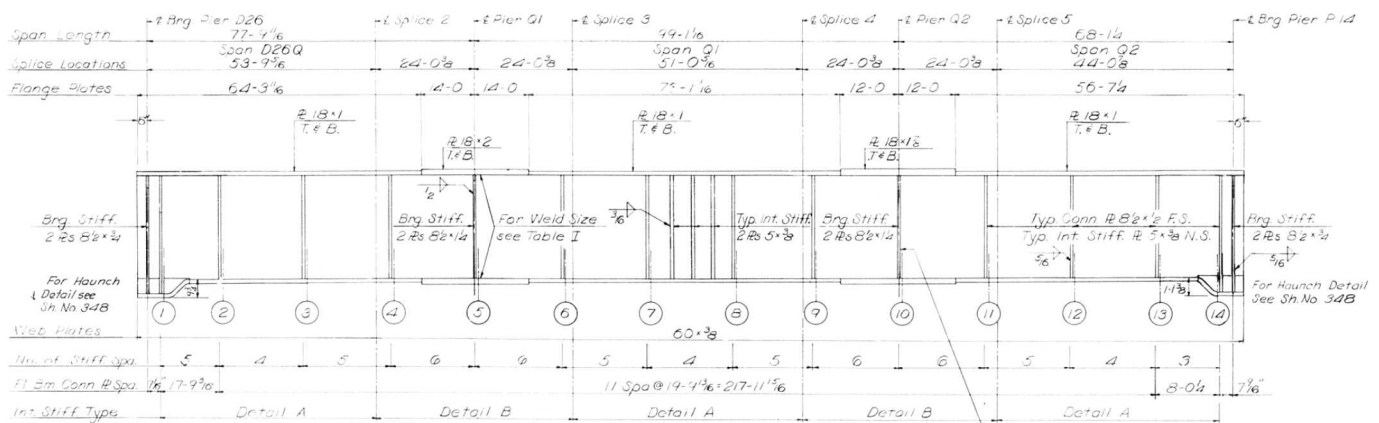
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
321 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.—70	82-3HVF & E-1	ST. CLAIR	247	192
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER Q1
SPANS D26Q thru Q2



GIRDER Q2
SPANS D26Q thru Q2

Sign Bracket
Interior Stiffeners should be moved if necessary to clear sign bracket Connection Plate.

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh No 319

All Bearing Stiffeners and Connection Plates to be vertical

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No's. 348, 349 and 350.

For Sign Bracket Details see Sh. No 360.

DESIGNED BY R. N. S.
DRAWN BY S. C. H
CHECKED BY A. T.
APPROVED BY H. W. L.

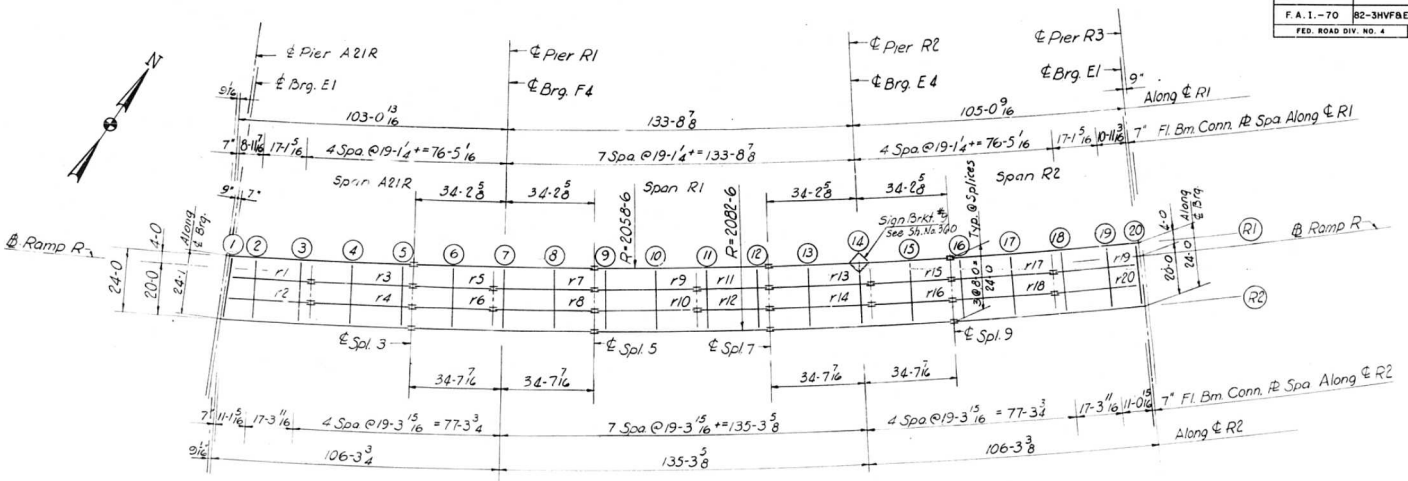
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS Q1 AND Q2
SPANS D26Q THRU Q2
POPLAR STREET BRIDGE APPROACHES
RAMP "Q"
F.A.I RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 322 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-I	ST. CLAIR	247	193
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

Spans A21R-R1-R2

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. R1	GIR. R2	DIFF.
CL. BRG.		453.231	455.038	1.807
FLOOR BEAM	1	453.247	455.054	1.807
FLOOR BEAM	2	453.491	455.354	1.863
FLOOR BEAM	3	453.958	455.821	1.863
FLOOR BEAM	4	454.480	456.342	1.862
FLOOR BEAM	5	455.001	456.864	1.863
SPLICE	3	455.110	456.973	1.863
FLOOR BEAM	6	455.520	457.382	1.862
FLOOR BEAM	7	456.038	457.900	1.862
FLOOR BEAM	8	456.556	458.418	1.862
SPLICE	5	456.966	458.828	1.862
FLOOR BEAM	9	457.058	458.921	1.863
FLOOR BEAM	10	457.503	459.365	1.862
FLOOR BEAM	11	457.947	459.809	1.862
FLOOR BEAM	12	458.391	460.253	1.862
SPLICE	7	458.484	460.346	1.862
FLOOR BEAM	13	458.753	460.616	1.863
FLOOR BEAM	14	459.094	460.956	1.862
FLOOR BEAM	15	459.434	461.297	1.863
SPLICE	9	459.704	461.566	1.862
FLOOR BEAM	16	459.752	461.615	1.863
FLOOR BEAM	17	459.986	461.848	1.862
FLOOR BEAM	18	460.219	462.081	1.862
FLOOR BEAM	19	460.427	462.290	1.863
FLOOR BEAM	20	460.561	462.423	1.862
CL. BRG.		460.568	462.430	1.862

BILL OF MATERIAL

*Structural Steel	Lbs.	377,170

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6960 lbs

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS A21R THRU R2

POPLAR STREET BRIDGE APPROACHES
RAMP "R"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 323 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

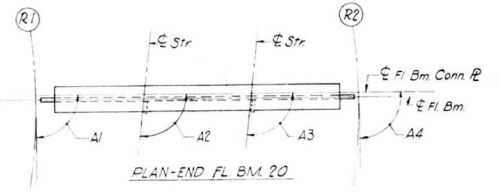
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	194
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

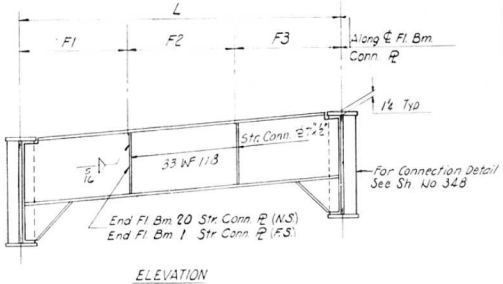
STR	L	S1	S2	S3	B1	B2
1	30 10 1/4	9 8 1/16	17 2 1/8	4 1/8	84.42.32	89.34.19
2	31 7 7/8	10 4 11/16	17 2 15/16	4 1/4	84.43.06	89.33.45
3	39 4 5/16	15 2 1/16	19 2 1/8	4 1/8	89.28.06	89.28.06
4	38 6 1/16	15 2 3/4	19 3 1/16	4 1/4	89.28.06	89.28.06
5	30 4 1/8	15 2 1/16		15 2 1/16	89.34.46	89.34.46
6	30 5 9/16	15 2 3/4		15 2 3/4	89.34.46	89.34.46
7	38 4 5/16	4 1/8	19 2 1/8	15 2 1/16	89.28.06	89.28.06
8	38 6 1/8	4 1/4	19 3 1/16	15 2 3/4	89.28.06	89.28.06
9	38 4 5/16	4 1/8	19 2 1/8	15 2 1/16	89.28.06	89.28.06
10	38 6 1/8	4 1/4	19 3 1/16	15 2 3/4	89.28.06	89.28.06
11	27 2 5/16	4 1/16	19 2 1/8	4 1/16	89.37.23	89.37.23
12	27 3 5/8	4 1/4	19 3 1/16	4 1/4	89.37.23	89.37.23
13	38 4 5/16	15 2 1/16	19 2 1/8	4 1/8	89.28.06	89.28.06
14	38 6 1/8	15 2 3/4	19 3 1/16	4 1/4	89.28.06	89.28.06
15	30 4 1/8	15 2 1/16		15 2 1/16	89.34.46	89.34.46
16	30 5 9/16	15 2 3/4		15 2 3/4	89.34.46	89.34.46
17	38 4 5/16	4 1/8	19 2 1/8	15 2 1/16	89.28.06	89.28.06
18	38 6 1/8	4 1/4	19 3 1/16	15 2 3/4	89.28.06	89.28.06
19	32 1 15/16	4 1/8	17 2 1/8	10 11 11/16	89.33.15	89.31.02
20	32 3 1/2	4 1/4	17 2 7/8	11 1/4	89.33.15	89.31.02

FLOOR BEAM DIMENSIONS

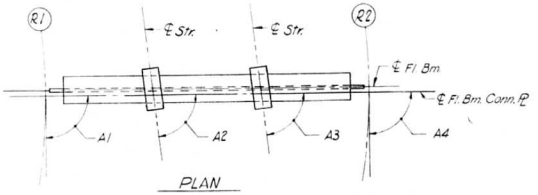
FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24 1 1/16	8 3/8	8 3/8	8 -3/8	85.07.02	84.42.32	84.43.06	85.10.25
2	24	7 11 3/8	7 11 15/16	8 5/8	90.00.00	89.50.27	89.51.01	90.00.00
3	24	7 11 11/16	8	8 5/16	90.00.00	90.19.01	90.19.35	90.00.00
4	24	7 11	8	8 1	90.00.00	89.53.20	89.53.20	90.00.00
5	24	7 11 5/8	8	8 3/8	90.00.00	90.25.14	90.25.14	90.00.00
6	24	7 11 5/16	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00
7	24	7 11 5/8	8	8 3/8	90.00.00	89.34.46	89.34.46	90.00.00
8	24	7 11	8	8 1	90.00.00	90.06.40	90.06.40	90.00.00
9	24	7 11 5/8	8	8 3/8	90.00.00	89.34.46	89.34.46	90.00.00
10	24	7 11	8	8 1	90.00.00	90.06.40	90.06.40	90.00.00
11	24	7 11 3/4	8	8 1/4	90.00.00	89.44.03	89.44.03	90.00.00
12	24	7 11 3/4	8	8 1/4	90.00.00	90.15.57	90.15.57	90.00.00
13	24	7 11	8	8 1	90.00.00	89.53.20	89.53.20	90.00.00
14	24	7 11 5/8	8	8 3/8	90.00.00	90.25.14	90.25.14	90.00.00
15	24	7 11 5/16	8	8 11/16	90.00.00	90.00.00	90.00.00	90.00.00
16	24	7 11 5/8	8	8 3/8	90.00.00	89.34.46	89.34.46	90.00.00
17	24	7 11	8	8 1	90.00.00	90.06.40	90.06.40	90.00.00
18	24	7 11 11/16	8	8 5/16	90.00.00	89.39.55	89.39.55	90.00.00
19	24	7 11 5/16	8	8 11/16	90.00.00	90.08.29	90.08.29	90.00.00
20	24	8	8	8	90.02.14	90.28.58	90.28.58	90.02.12



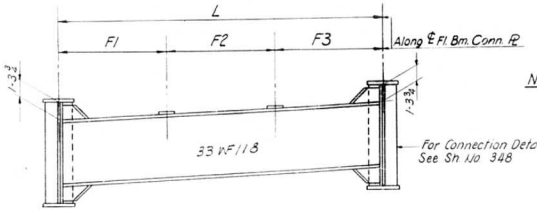
PLAN-END FL. BM. 20



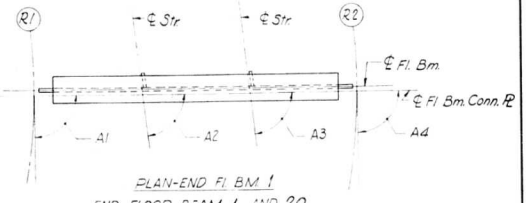
ELEVATION



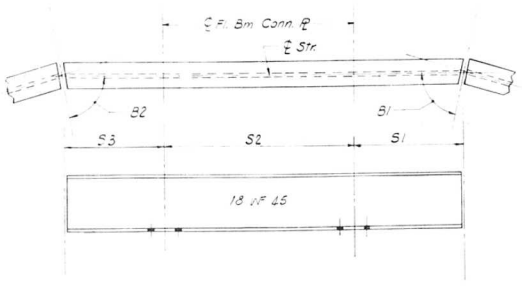
PLAN



ELEVATION
INTERIOR FLOOR BEAM 2 THRU 19
LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 1
END FLOOR BEAM 1 AND 20
LOOKING TOWARDS INCREASING STATION



TYPICAL STRINGER

NOTES:

Length L of Stringers and Fl. Bms is correct as given in the Table except the increment lengths are given to the nearest "1/8".

All dimensions are in the horizontal plane.

For Connection Plate Det. see Sht. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS A2IR THRU R2
POPLAR STREET BRIDGE APPROACHES
RAMP "R"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 326 OF 526

ED BY S.W.S.
BY J.K.
ED BY
VED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF8E-1	ST. CLAIR	247	195
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

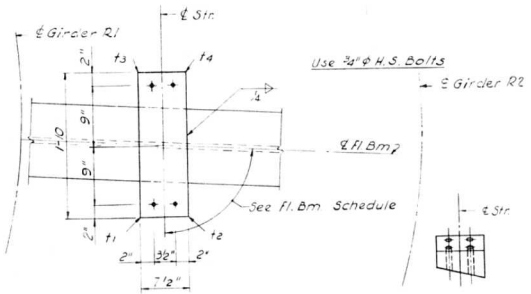
FLOOR BEAM ℄ THRU 5	T1	T2	T3	T4
STR. 1 THRU 4	15/16	3/8	1 1/2	15/16

FLOOR BEAM 6 THRU 8	T1	T2	T3	T4
STR. 5 THRU 8	15/16	3/8	1 1/2	15/16

FLOOR BEAM 9 THRU 12	T1	T2	T3	T4
STR. 9 THRU 12	1	3/8	1 1/2	7/8

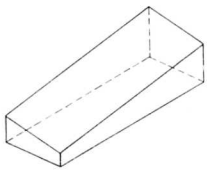
FLOOR BEAM 13 THRU 15	T1	T2	T3	T4
STR. 13 THRU 16	1 1/16	7/16	1 7/16	13/16

FLOOR BEAM 16 THRU 19	T1	T2	T3	T4
STR. 17 THRU 20	1 1/8	1/2	1 3/8	3/4

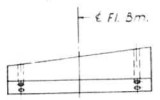


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

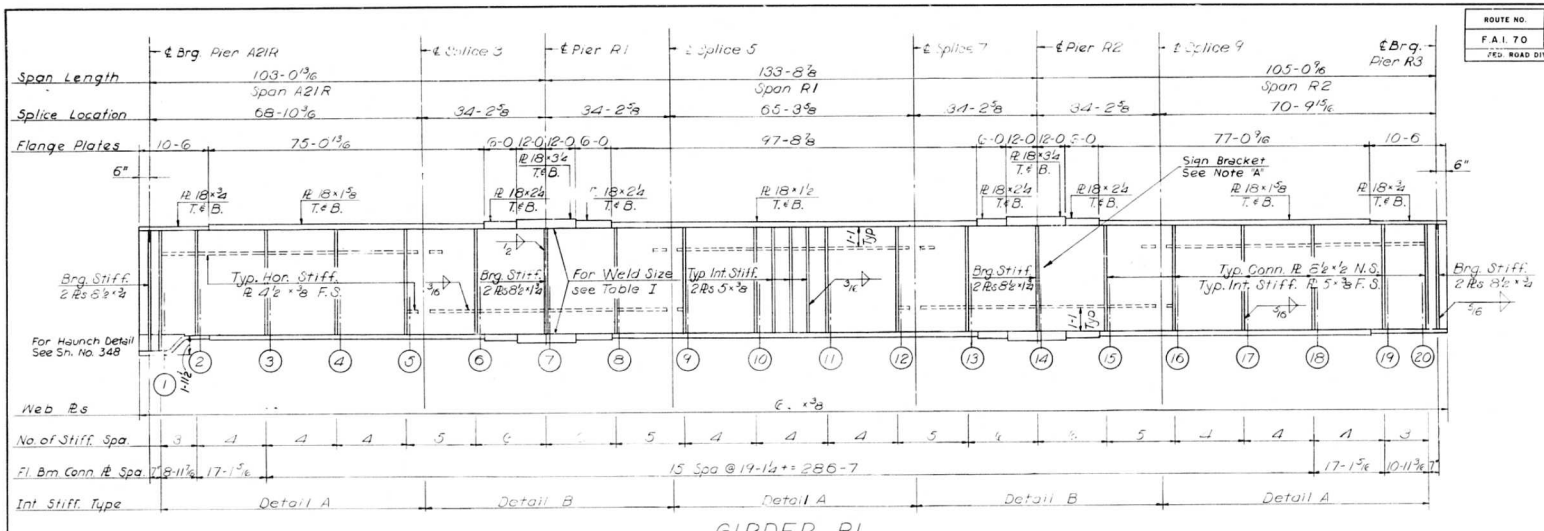
STRINGER SHIMS
SPANS A2IR THRU R2
POPLAR STREET BRIDGE APPROACHES
RAMP "R"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF8E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

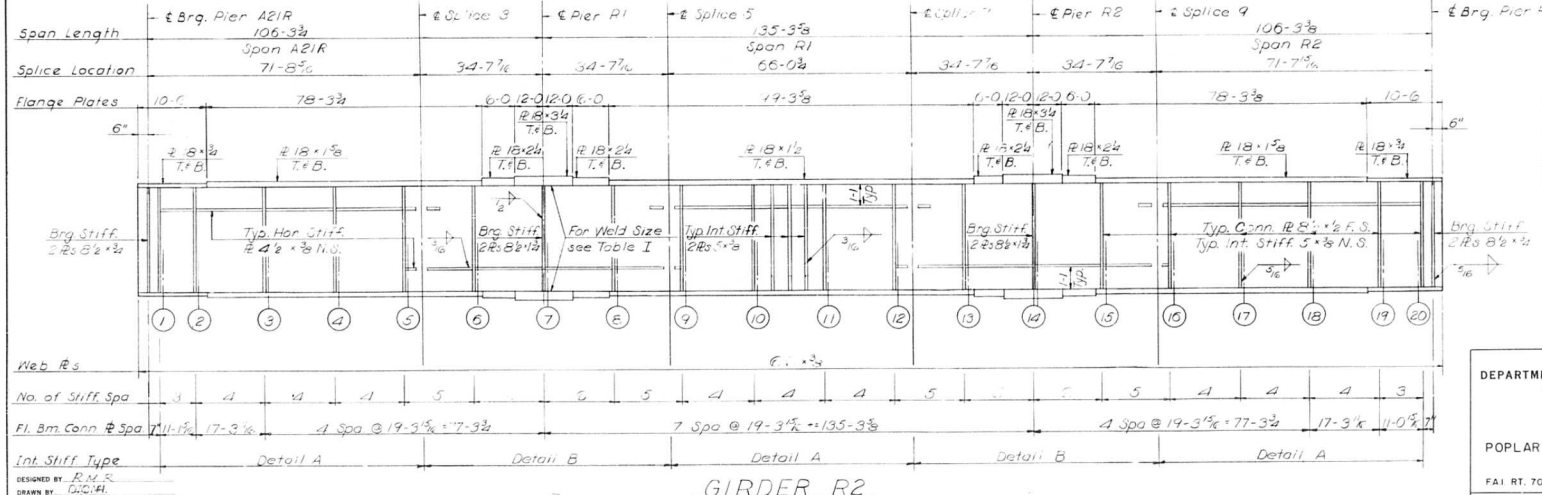
SHEET
325 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-I	ST. CLAIR	247	196
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



GIRDER R1
SPANS A21R thru R2



GIRDER R2
SPANS A21R thru R2

NOTE "A"
Intermediate Stiffeners should be moved if necessary to clear Sign Bracket Connection Plates.

NOTES:
All longitudinal dimensions shown are given along ℄ of Web. See Sh. No. 323
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection Plate Details and Table I see Sheet Nos. 348, 349 and 350.
For Sign Bracket Detail see Sheet No. 360.

DESIGNED BY R.M.R.
DRAWN BY D.R.H.
CHECKED BY A.T.
APPROVED BY K.J.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

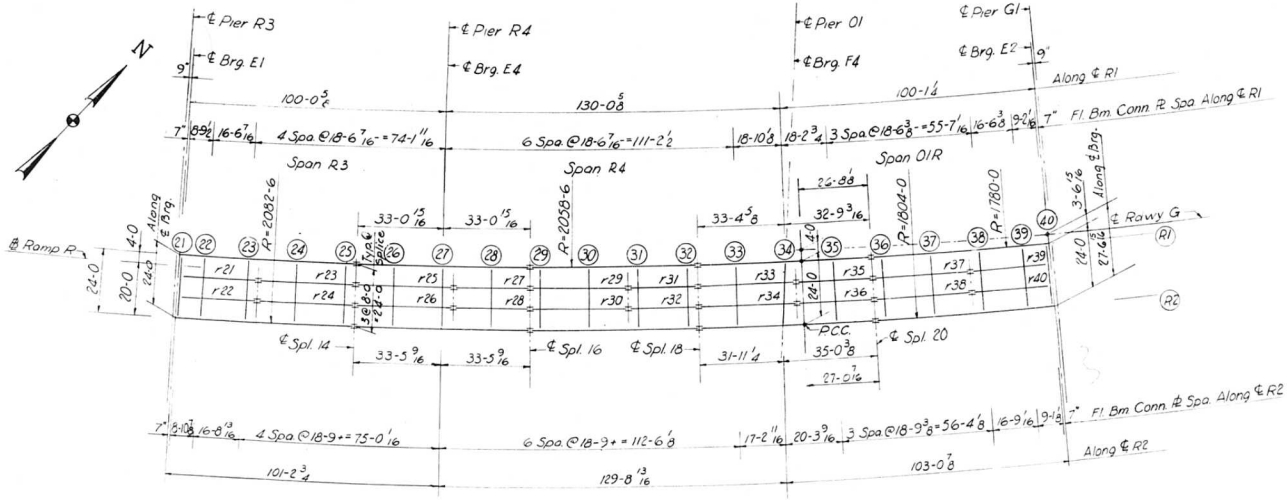
GIRDERS RI AND R2
SPANS A21R THRU R2
POPLAR STREET BRIDGE APPROACHES
RAMP "R"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 326 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	197
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans R3-R4-O1R

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. R1	GIR. R2	DIFF.
CL. BRG.		460.582	462.444	1.862
FLOOR BEAM	21	460.585	462.448	1.863
FLOOR BEAM	22	460.643	462.505	1.862
FLOOR BEAM	23	460.750	462.613	1.863
FLOOR BEAM	24	460.871	462.733	1.862
FLOOR BEAM	25	460.991	462.854	1.863
SPLICE	14	461.017	462.879	1.862
FLOOR BEAM	26	461.033	462.896	1.863
FLOOR BEAM	27	461.054	462.916	1.862
FLOOR BEAM	28	461.075	462.937	1.862
SPLICE	16	461.091	462.953	1.862
FLOOR BEAM	29	461.076	462.938	1.862
FLOOR BEAM	30	461.004	462.866	1.862
FLOOR BEAM	31	460.933	462.795	1.862
FLOOR BEAM	32	460.861	462.724	1.863
SPLICE	18	460.846	462.708	1.862
FLOOR BEAM	33	460.770	462.645	1.875
FLOOR BEAM	34	460.672	462.571	1.899
FLOOR BEAM	35	460.577	462.485	1.908
SPLICE	20	460.501	462.421	1.920
FLOOR BEAM	36	460.479	462.399	1.920
FLOOR BEAM	37	460.377	462.297	1.920
FLOOR BEAM	38	460.274	462.194	1.920
FLOOR BEAM	39	460.183	462.102	1.919
FLOOR BEAM	40	460.132	462.052	1.920
CL. BRG.		460.129	462.049	1.920

BILL OF MATERIAL		
*Structural Steel	Lbs.	361,640

* Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 7730 lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS R3, R4 & O1R
POPLAR STREET BRIDGE APPROACHES
RAMP "R"

F.A.I. RT.70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 327 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

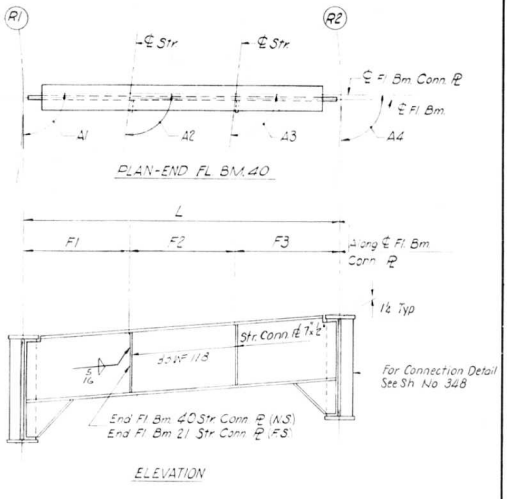
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF & E-1	ST. CLAIR	247	198
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

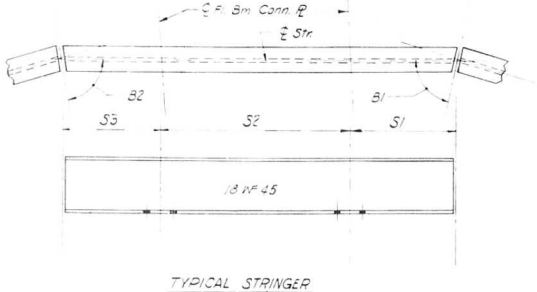
STRINGER DIMENSIONS

STR	L	S1	S2	S3	B1	B2
21	29 5 5/16	8 9 15/16	16 7 1/4	4 1/16	89.33.18	89.35.31
22	29 6 11/16	8 10 7/16	16 8	4 1/4	89.33.18	89.35.30
23	37 2 9/16	14 7 3/16	18 7 5/16	4 1/8	89.29.03	89.29.03
24	37 4 5/16	14 7 7/8	18 8 1/8	4 1/4	89.29.03	89.29.03
25	37 2 9/16	14 7 3/16	18 7 5/16	4 1/8	89.29.03	89.29.03
26	37 4 5/16	14 7 7/8	18 8 1/8	4 1/4	89.29.03	89.29.03
27	29 2 3/8	14 7 3/16		14 7 3/16	89.35.43	89.35.43
28	29 3 3/4	14 7 7/8		14 7 7/8	89.35.43	89.35.43
29	37 2 9/16	4 1/8	18 7 5/16	14 7 3/16	89.29.03	89.29.03
30	37 4 5/16	4 1/4	18 8 1/8	14 7 7/8	89.29.03	89.29.03
31	26 7 1/2	4 1/16	18 7 5/16	4 1/16	89.37.51	89.37.51
32	26 8 11/16	4 1/4	18 8 1/8	4 1/4	89.37.51	89.37.51
33	37 2 9/16	14 7 3/16	18 3 5/8	4 3 3/4	89.29.03	89.29.03
34	37 4 5/16	14 7 7/8	17 9 3/16	4 11 1/4	89.29.03	89.29.03
35	29 2 1/2	14 7 1/4		14 7 1/4	89.32.31	89.31.57
36	29 4 1/16	14 8		14 8	89.32.31	89.31.57
37	37 2 11/16	4 1/8	18 7 3/8	14 7 1/4	89.24.13	89.24.13
38	37 4 11/16	4 5/16	18 8 3/8	14 8 1/16	89.24.13	89.24.13
39	29 9 1/8	4 1/8	16 7 5/16	9 1 3/4	89.31.23	89.59.57
40	29 9 15/16	4 5/16	16 8 3/16	9 1 7/16	89.31.27	89.59.54

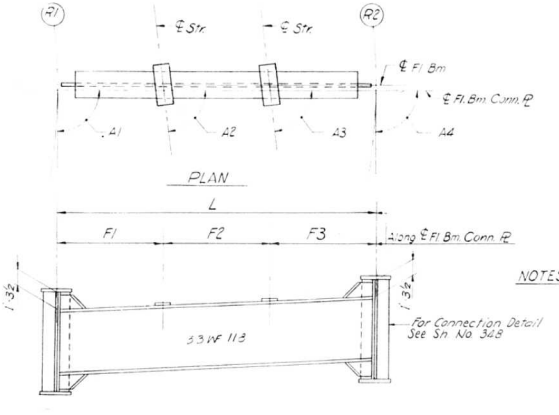
FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
21	24	8	8	8	89.57.46	89.33.18	89.33.18	89.57.48
22	24	7 11 1/2	8	8 1/2	90.00.00	89.50.12	89.50.12	90.00.00
23	24	7 11 11/16	8	8 5/16	90.00.00	90.17.49	90.17.50	90.00.00
24	24	7 11 1/16	8	8 15/16	90.00.00	89.53.20	89.53.20	90.00.00
25	24	7 11 5/8	8	8 3/8	90.00.00	90.24.17	90.24.17	90.00.00
26	24	7 11 1/16	8	8 15/16	90.00.00	89.53.20	89.53.20	90.00.00
27	24	7 11 5/8	8	8 3/8	90.00.00	90.24.17	90.24.17	90.00.00
28	24	7 11 3/8	8	8 5/8	90.00.00	90.00.00	90.00.00	90.00.00
29	24	7 11 5/8	8	8 3/8	90.00.00	89.35.43	89.35.43	90.00.00
30	24	7 11 1/16	8	8 15/16	90.00.00	90.06.40	90.06.40	90.00.00
31	24	7 11 3/4	8	8 1/4	90.00.00	89.44.31	89.44.31	90.00.00
32	24	7 11 3/4	8	8 1/4	90.00.00	90.15.29	90.15.29	90.00.00
33	24	7 11 1/16	8	8 15/16	90.00.00	89.53.20	89.53.20	90.00.00
34	24 13/16	7 11 7/8	8 1/4	8 3/4	85.37.23	86.02.11	86.02.11	85.40.25
35	24	7 11 5/16	8	8 11/16	90.00.00	89.59.58	89.59.58	90.00.00
36	24	7 11 9/16	8	8 7/16	90.00.00	89.31.55	89.31.55	90.00.00
37	24	7 10 7/8	8	8 1 1/8	90.00.00	90.07.42	90.07.42	90.00.00
38	24	7 11 5/8	8	8 3/8	90.00.00	89.39.06	89.39.10	90.00.00
39	24	7 11 3/8	8	8 5/8	90.00.00	90.11.02	90.11.06	90.00.00
40	24	8	8	8	89.31.18	90.00.03	90.00.06	89.31.41

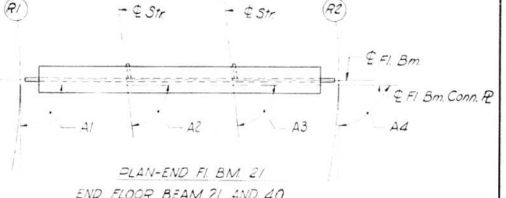




TYPICAL STRINGER



ELEVATION
INTERIOR FLOOR BEAM 22 THRU 39
LOOKING TOWARDS INCREASING STATION



PLAN-END FL BM. 21
END FLOOR BEAM 21 AND 40
LOOKING TOWARDS INCREASING STATION

NOTES:
Length L of Stringers and Fl Bms is correct as given in the Table except the increment lengths are given to the nearest "0".
All dimensions are in the horizontal plane.
For Connection Plate Det see Sht. No. 348

DESIGNED BY: F. M. S.
DRAWN BY: J.K.
CHECKED BY: A. T.
APPROVED BY: F. T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRINGER AND FLOOR BEAM
SCHEDULE
SPANS R3, R4 & OIR
POPLAR STREET BRIDGE APPROACHES
RAMP "R"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 328 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 70	82-3HVF&E-I	ST. CLAIR	247	199
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

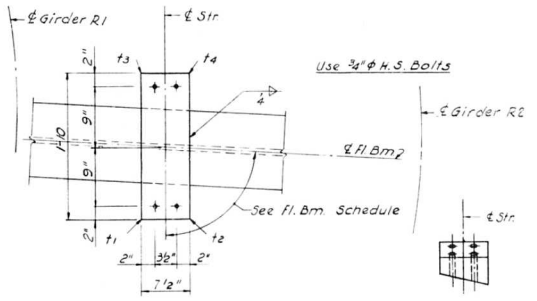
FLOOR BEAM 22 THRU 25	T1	T2	T3	T4
STR. 21 THRU 24	1	3/8	1 1/8	1/2

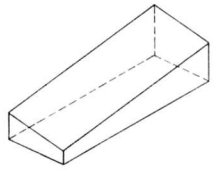
FLOOR BEAM 26 THRU 28	T1	T2	T3	T4
STR. 25 THRU 28	1	7/16	1 1/16	1/2

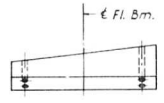
FLOOR BEAM 29 THRU 32	T1	T2	T3	T4
STR. 29 THRU 32	1 1/16	1/2	1	7/16

FLOOR BEAM 33 THRU 35	T1	T2	T3	T4
STR. 33 THRU 36	1 1/8	1/2	1	3/8

FLOOR BEAM 36 THRU 39	T1	T2	T3	T4
STR. 37 THRU 40	1 1/8	1/2	1	3/8




ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS R3, R4 & OIR

POPLAR STREET BRIDGE APPROACHES
RAMP "R"

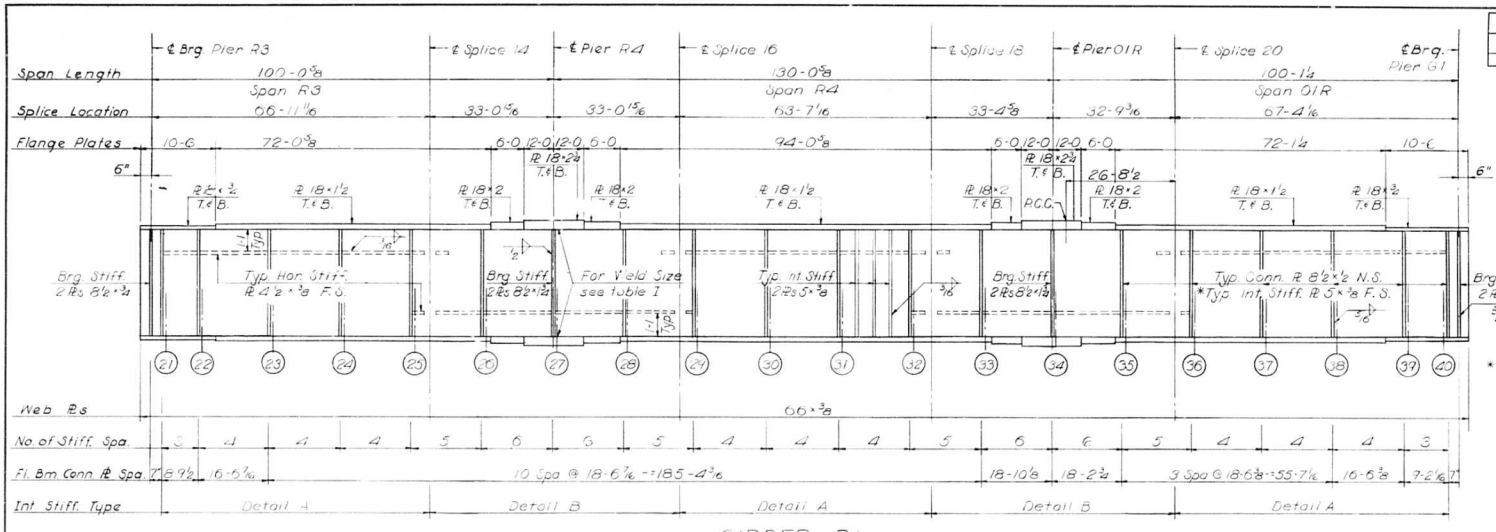
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
329 of 526

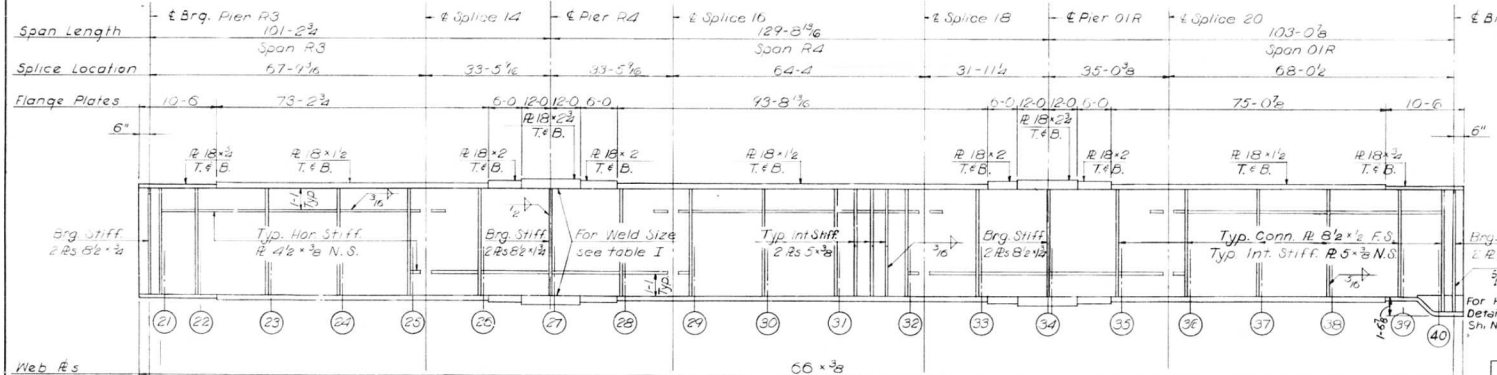
DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	200
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER R1
SPANS R3 thru O1R

* See Slab Bracket Details (Sh. No. 359) for location and details of Connection Plates for Slab Brackets. These Connection Plates to be used instead of Typical Intermediate Stiffeners where Stiffeners occur midway between Floor Beams.



GIRDER R2
SPANS R3 thru O1R

NOTES:
All longitudinal dimensions shown are given along ℄ of Web. See Sheet No. 327.
All Bearing Stiffeners and Connection Plates to be vertical.
For Splice, Stiffener and Connection Plate Details and Table I see Sheet Nos. 348, 349 and 350.

DESIGNED BY N.T.
DRAWN BY Q.C.H.
CHECKED BY A.A.
APPROVED BY K.A.

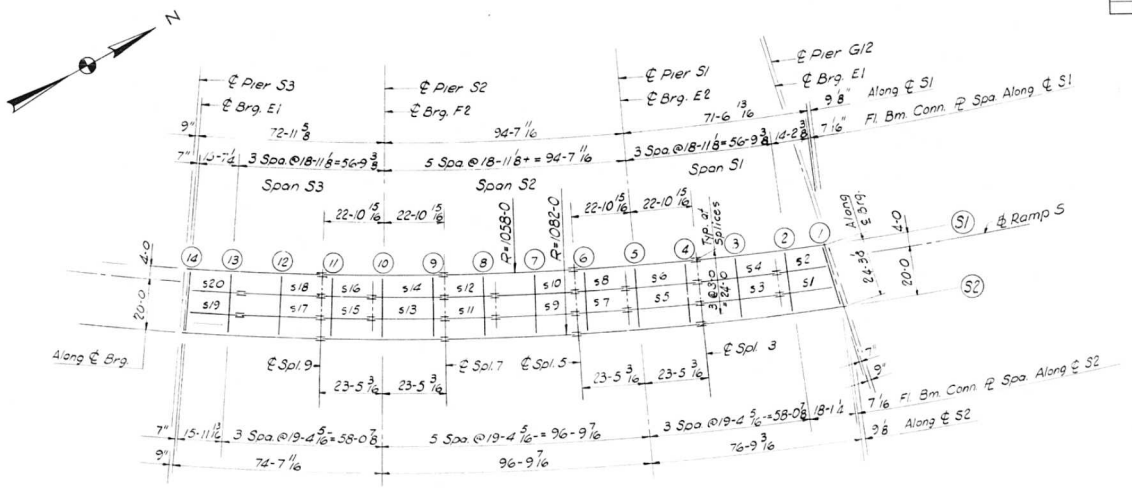
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS R1 AND R2
SPANS R3 THRU O1R
POPLAR STREET BRIDGE APPROACHES
RAMP "R"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 330 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	201
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

Spans S1 Thru S3

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. S2	GIR. S1	DIFF.
CL. BRG.		447.780	446.208	1.572
FLOOR BEAM	1	447.798	446.223	1.575
FLOOR BEAM	2	448.334	446.583	1.751
FLOOR BEAM	3	448.908	447.062	1.846
SPLICE	3	449.360	447.440	1.920
FLOOR BEAM	4	449.488	447.568	1.920
FLOOR BEAM	5	450.096	448.176	1.920
FLOOR BEAM	6	450.704	448.784	1.920
SPLICE	5	450.832	448.912	1.920
FLOOR BEAM	7	451.400	449.480	1.920
FLOOR BEAM	8	452.119	450.199	1.920
SPLICE	7	452.687	450.767	1.920
FLOOR BEAM	9	452.847	450.927	1.920
FLOOR BEAM	10	453.608	451.687	1.921
FLOOR BEAM	11	454.368	452.448	1.920
SPLICE	9	454.528	452.608	1.920
FLOOR BEAM	12	455.111	453.290	1.821
FLOOR BEAM	13	455.850	454.155	1.695
FLOOR BEAM	14	456.460	454.867	1.593
CL. BRG.		456.482	454.894	1.588

BILL OF MATERIAL

*Structural Steel	Lbs.	239,560

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 5740 Lbs.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS S1 THRU S3

POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 331 OF 526

DESIGNED BY R.M.R.
DRAWN BY A.T.
CHECKED BY A.T.
APPROVED BY K.J.

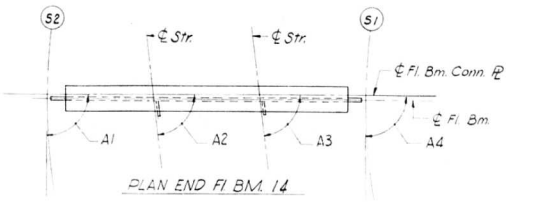
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.– 70	82-3HVF & E-1	ST. CLAIR	247	202
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

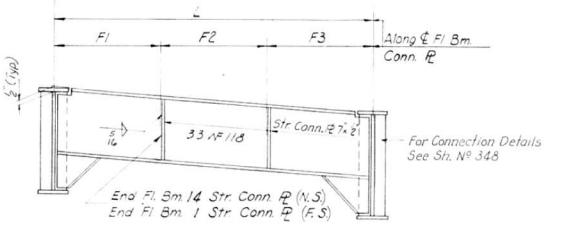
STR	L	S1	S2	S3	B1	B2
1	20 10 3/8		16 9 13/16	4 9/16	98.55.43	90.33.36
2	19 6 3/8		15 6 3/16	4 3/16	98.57.36	90.31.43
3	30 4 1/16	15 2		15 2	90.48.33	90.48.33
4	30 1 3/8	15 11/16		15 11/16	90.48.33	90.48.33
5	27 3 5/8	4 9/16	19 2 9/16	4 9/16	90.43.42	90.43.42
6	27 1 3/16	4 3/16	19 7/8	4 3/16	90.43.42	90.43.42
7	19 2 9/16	15 2		4 9/16	90.30.45	90.30.45
8	19 7/8	15 11/16		4 3/16	90.30.45	90.30.45
9	30 4 1/16	15 2		15 2	90.48.33	90.48.33
10	30 1 3/8	15 11/16		15 11/16	90.48.33	90.48.33
11	19 2 5/16	4 9/16		15 2	90.30.45	90.30.45
12	19 7/8	4 3/16		15 11/16	90.30.45	90.30.45
13	27 3 5/8	4 9/16	19 2 9/16	4 9/16	90.43.42	90.43.42
14	27 1 3/16	4 3/16	19 7/8	4 3/16	90.43.42	90.43.42
15	19 2 9/16	15 2		4 9/16	90.30.45	90.30.45
16	19 7/8	15 11/16		4 3/16	90.30.45	90.30.45
17	30 4 1/16	15 2		15 2	90.48.33	90.48.33
18	30 1 3/8	15 11/16		15 11/16	90.48.33	90.48.33
19	19 10 7/8	4 9/16	15 10 5/16		90.31.51	90.36.07
20	19 8 15/16	4 3/16	15 8 3/4		90.31.51	90.36.08

FLOOR BEAM DIMENSIONS

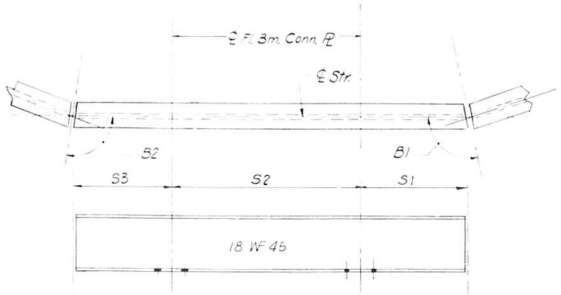
FL BM	L	F1	F2	F3	A1	A2	A3	A4
1	24 3 1/8	8 1 1/16	8 1 1/16	8 1 1/16	98.18.48	98.55.43	98.57.36	98.30.11
2	24	8 3/8	8	7 11 5/8	90.00.00	89.39.21	89.41.14	90.00.00
3	24	8 1 5/16	8	7 10 3/4	90.00.00	90.00.00	90.00.00	90.00.00
4	24	8 1/2	8	7 11 1/2	90.00.00	90.30.45	90.30.45	90.00.00
5	24	8 1/2	8	7 11 1/2	90.00.00	89.29.15	89.29.15	90.00.00
6	24	8 5/16	8	7 11 11/16	90.00.00	89.42.12	89.42.12	90.00.00
7	24	8 1 5/16	8	7 10 3/4	90.00.00	90.00.00	90.00.00	90.00.00
8	24	8 5/16	8	7 11 11/16	90.00.00	90.17.48	90.17.48	90.00.00
9	24	8 1/2	8	7 11 1/2	90.00.00	90.30.45	90.30.45	90.00.00
10	24	8 1/2	8	7 11 1/2	90.00.00	89.29.15	89.29.15	90.00.00
11	24	8 5/16	8	7 11 11/16	90.00.00	89.42.12	89.42.12	90.00.00
12	24	8 1 5/16	8	7 10 3/4	90.00.00	90.00.00	90.00.00	90.00.00
13	24	8 3/8	8	7 11 5/8	90.00.00	90.18.54	90.18.53	90.00.00
14	24	8	8	8	89.55.46	89.23.53	89.23.52	89.55.46



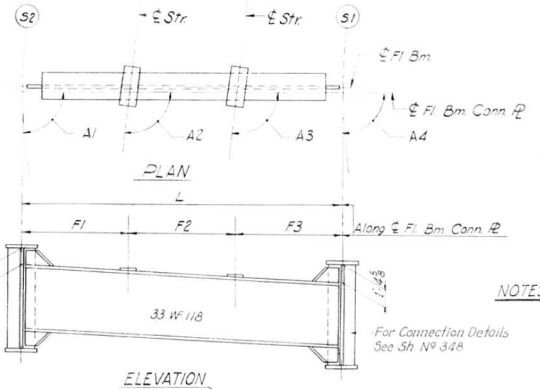
PLAN END FL BM. 14



ELEVATION

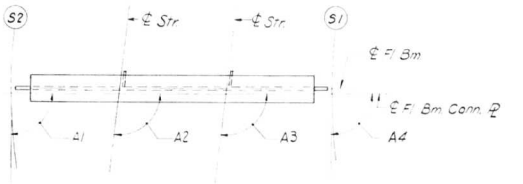


TYPICAL STRINGER



PLAN

ELEVATION
INTERIOR FLOOR BEAM 2 THRU 13
LOOKING TOWARDS INCREASING STATION



PLAN-END FL BM. 1
END FLOOR BEAM 1 AND 14
LOOKING TOWARDS INCREASING STATION

NOTES:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest "16".
All dimensions are in the horizontal plane.
For Connection Plate Det. see Sht. No. 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER AND FLOOR BEAM SCHEDULE

SPANS S1 THRU S3
POPLAR STREET BRIDGE APPROACHES
RAMP "S"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 392 OF 526

SIGNED BY
CHKD IN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	203
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 2	T1	T2	T3	T4
STR.				
1	9/16	1 1/16	1 3/16	1 11/16
2	9/16	1 1/8	1 1/8	1 11/16

FLOOR BEAM 3	T1	T2	T3	T4
STR.				
3	1/2	1 1/8	1 1/8	1 3/4
4	9/16	1 1/8	1 1/8	1 11/16

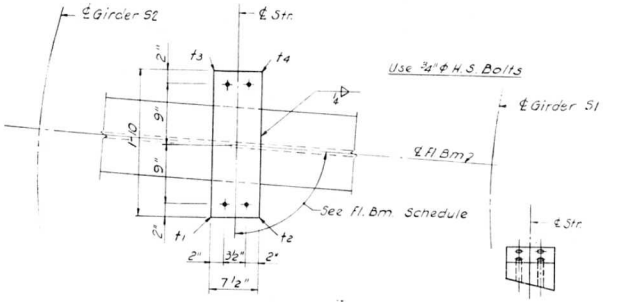
FLOOR BEAM 4 THRU 6	T1	T2	T3	T4
STR. 5 THRU 8	1/2	1 1/16	1 3/16	1 3/4

FLOOR BEAM 7 THRU 8	T1	T2	T3	T4
STR. 9 THRU 12	7/16	1	1 1/4	1 13/16

FLOOR BEAM 9 THRU 11	T1	T2	T3	T4
STR. 13 THRU 16	3/8	1	1 1/4	1 7/8

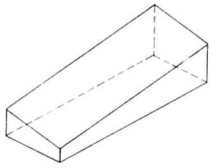
FLOOR BEAM 12	T1	T2	T3	T4
STR.				
17	3/8	15/16	1 5/16	1 7/8
18	3/8	15/16	1 5/16	1 7/8

FLOOR BEAM 13	T1	T2	T3	T4
STR.				
19	7/16	15/16	1 5/16	1 13/16
20	3/8	15/16	1 5/16	1 7/8

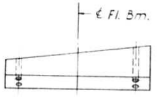


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS S1 THRU S3

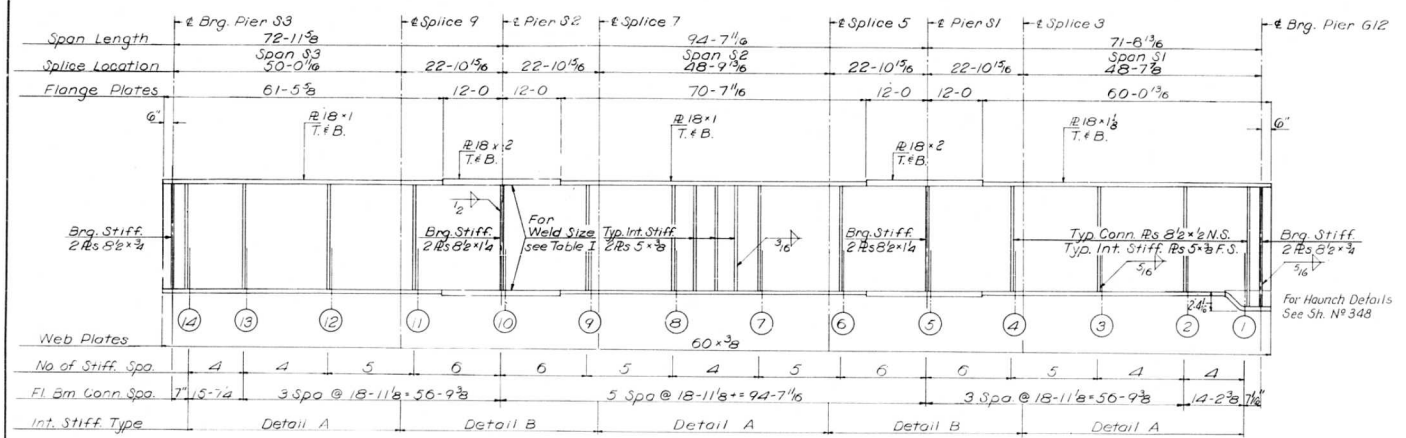
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

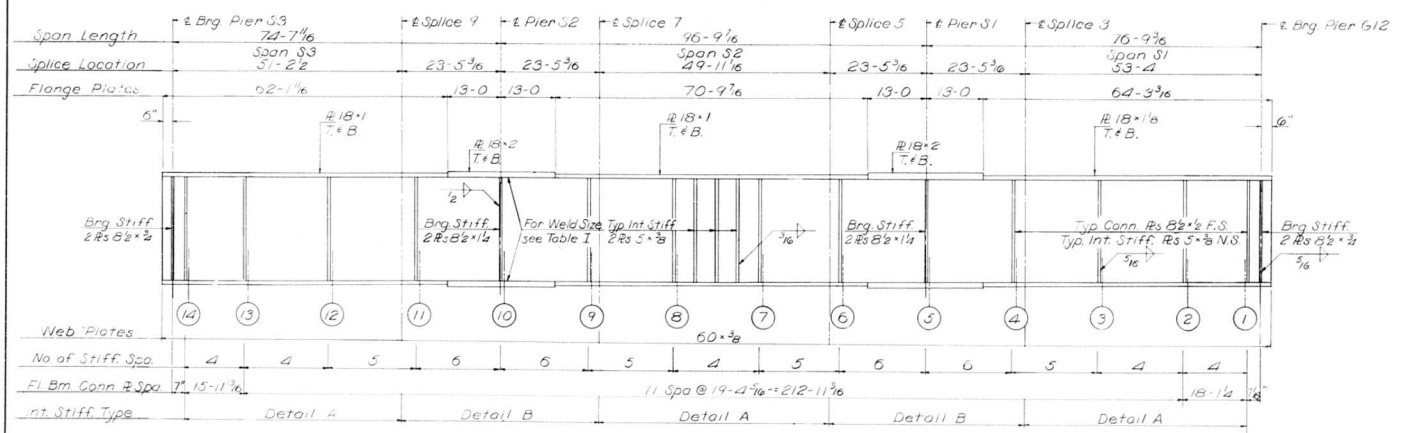
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
333 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.–70	82-3HVF & E-1	ST. CLAIR	247	204
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER S1
SPANS S1 thru S3



GIRDER S2
SPANS S1 thru S3

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 331.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener Connection Plate Details and Table I see Sh. No's. 348, 349 and 350.

DESIGNED BY R. M. R.
DRAWN BY D. C. H.
CHECKED BY A. T.
APPROVED BY [illegible]

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

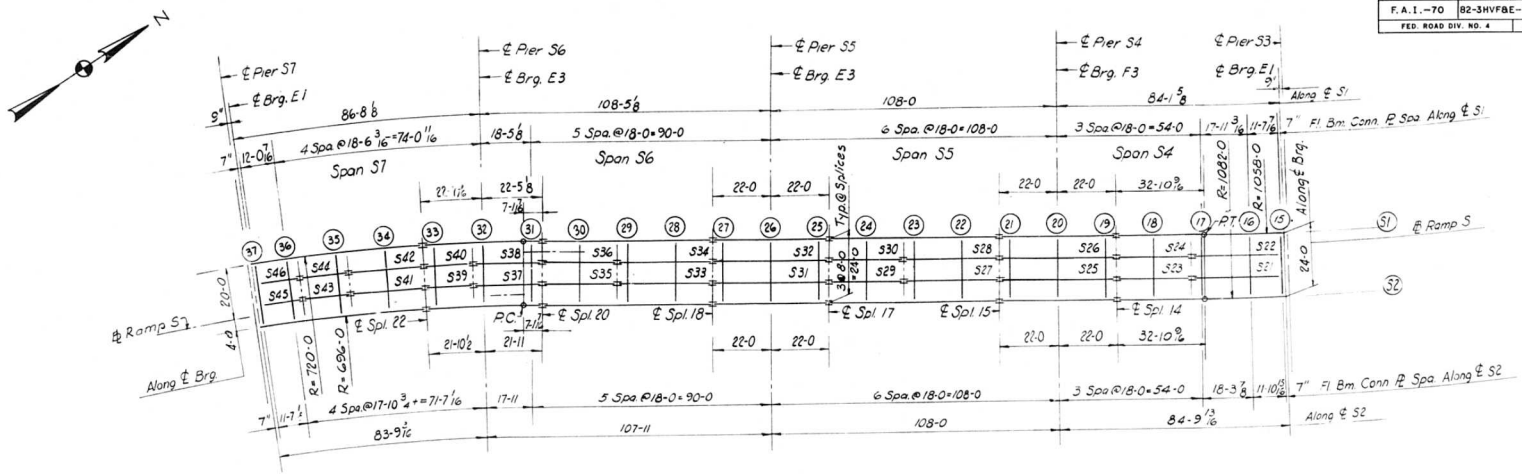
GIRDERS S1 AND S2
SPANS S1 THRU S3
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 340 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVFBE-1	ST. CLAIR	247	205
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN
Spans S4 Thru S7

ELEVATION TOP OF GIRDER WEB

		GIR. S2	GIR. S1	DIFF.
CL. BRG.		456.540	454.967	1.573
FLOOR BEAM	15	456.562	454.995	1.567
FLOOR BEAM	16	457.015	455.557	1.458
FLOOR BEAM	17	457.711	456.426	1.285
FLOOR BEAM	18	458.394	457.298	1.096
SPLICE	14	458.926	457.975	.951
FLOOR BEAM	19	459.080	458.169	.911
FLOOR BEAM	20	459.769	459.039	.730
FLOOR BEAM	21	460.459	459.909	.550
SPLICE	15	460.613	460.102	.511
FLOOR BEAM	22	461.149	460.779	.370
FLOOR BEAM	23	461.839	461.649	.190
FLOOR BEAM	24	462.530	462.519	.011
SPLICE	17	463.066	463.195	.129
FLOOR BEAM	25	463.220	463.389	.169
FLOOR BEAM	26	463.910	464.258	.348
FLOOR BEAM	27	464.600	465.128	.528
SPLICE	18	464.753	465.322	.569
FLOOR BEAM	28	465.290	465.998	.708
FLOOR BEAM	29	465.980	466.868	.888
FLOOR BEAM	30	466.670	467.738	1.068
SPLICE	20	467.205	468.415	1.209
FLOOR BEAM	31	467.360	468.604	1.244
FLOOR BEAM	32	468.050	469.473	1.423
FLOOR BEAM	33	468.739	470.347	1.608
SPLICE	22	468.892	470.541	1.649
FLOOR BEAM	34	469.442	471.152	1.710
FLOOR BEAM	35	470.149	471.937	1.788
FLOOR BEAM	36	470.856	472.722	1.866
FLOOR BEAM	37	471.314	473.233	1.919
CL. BRG.		471.337	473.257	1.920

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	408,030

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 8580

DESIGNED BY R.W.S.
DRAWN BY J.K.
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
FRAMING PLAN
SPANS S4 THRU S7
POPLAR STREET BRIDGE APPROACHES
RAMP "S"
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1
H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILLINOIS
SHEET 335 OF 526

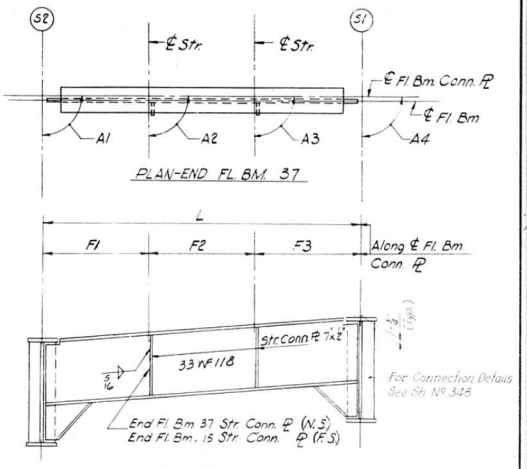
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I – 70	82-3HVF&E-1	ST. CLAIR	247	206
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	

STRINGER DIMENSIONS

STR	L	S1	S2	S3	S4	B1	B2
21	34 1/16		11 9 3/4	18 2 5/16	4	90.57.34	90.39.56
22	33 9 3/8		11 8 9/16	18 3/4	4	90.57.38	90.39.52
23	28	14			14	90.00.00	90.00.00
24	28	14			14	90.00.00	90.00.00
25	44	4	18	18	4	90.00.00	90.00.00
26	44	4	18	18	4	90.00.00	90.00.00
27	36	14	18		4	90.00.00	90.00.00
28	36	14	18		4	90.00.00	90.00.00
29	28	14			14	90.00.00	90.00.00
30	28	14			14	90.00.00	90.00.00
31	44	4	18	18	4	90.00.00	90.00.00
32	44	4	18	18	4	90.00.00	90.00.00
33	36	14	18	4		90.00.00	90.00.00
34	36	14	18	4		90.00.00	90.00.00
35	28	14		14		90.00.00	90.00.00
36	28	14		14		90.00.00	90.00.00
37	26 1 5/16	4	18 1	4 1/4		89.26.17	89.01.00
38	26 3 7/8	4	18 3 1/16	4 13/16		89.26.11	89.01.06
39	18 1 1/4	14 15/16		4 1/4		89.15.48	89.15.48
40	18 3 11/16	14 2 7/8		4 13/16		89.15.48	89.15.48
41	28 1 7/8	14 15/16		14 15/16		88.51.15	88.51.15
42	28 5 3/4	14 2 7/8		14 2 7/8		88.51.15	88.51.15
43	18 1 1/4	4 1/4		14 15/16		89.15.48	89.15.48
44	18 3 11/16	4 13/16		14 2 7/8		89.15.48	89.15.48
45	15 9 3/16	4 1/4	11 8 7/8			89.21.31	89.15.00
46	15 11 1/2	4 13/16	11 10 11/16			89.21.28	89.15.02

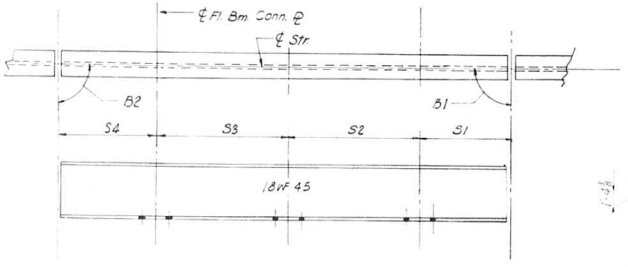
FLOOR BEAM DIMENSIONS

FL BM	L	F1	F2	F3	A1	A2	A3	A4
15	24	8	8	8	90.04.14	90.57.34	90.57.38	90.04.20
16	24	8 1 7/16	8	7 10 9/16	90.00.00	90.15.30	90.15.33	90.00.00
17	24	8 9/16	8	7 11 7/16	90.00.00	89.20.04	89.20.08	90.00.00
18	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
19	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
20	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
21	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
22	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
23	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
24	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
25	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
26	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
27	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
28	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
29	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
30	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
31	24	7 11 1/2	8	8 1/2	90.00.00	89.26.17	89.26.11	90.00.00
32	24	7 11 5/16	8	8 11/16	90.00.00	90.09.21	90.39.15	90.00.00
33	24	7 11 1/2	8	8 1/2	90.00.00	90.24.33	90.24.33	90.00.00
34	24	7 10 5/16	8	8 1 11/16	90.00.00	90.00.00	90.00.00	90.00.00
35	24	7 11 1/2	8	8 1/2	90.00.00	89.35.27	89.35.27	90.00.00
36	24	7 11 5/8	8	8 7/16	90.00.00	89.41.09	89.41.07	90.00.00
37	24	8	8	8	90.06.05	90.45.00	90.44.58	90.06.22

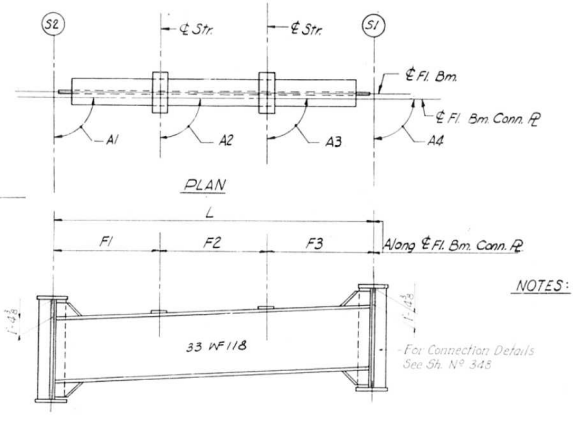


PLAN-END FL. BM. 37

ELEVATION

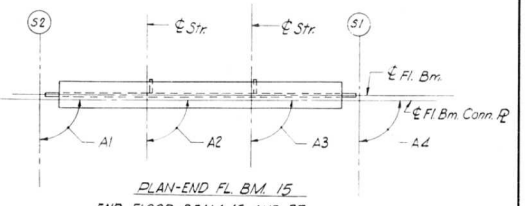


TYPICAL STRINGER



PLAN

ELEVATION
INTERIOR FLOOR BEAM 16 – 36
LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 15
END FLOOR BEAM 15 AND 37
LOOKING TOWARDS INCREASING STATION

NOTES:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Def. see Sh. N° 348

DESIGNED BY
DRAWN BY JK
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER AND FLOOR BEAM SCHEDULE

SPANS S4 THRU S7
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I RT 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 336 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	207
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 16	T1	T2	T3	T4
STR.				
21	7/16	7/8	1 3/8	1 13/16
22	3/8	7/8	1 3/8	1 7/8

FLOOR BEAM 17	T1	T2	T3	T4
STR.				
21	7/16	7/8	1 3/8	1 13/16
22	7/16	13/16	1 7/16	1 13/16

FLOOR BEAM 18	T1	T2	T3	T4
STR.				
23	1/2	13/16	1 7/16	1 3/4
24	7/16	13/16	1 7/16	1 13/16

FLOOR BEAM 19	T1	T2	T3	T4
STR.				
25	1/2	13/16	1 7/16	1 3/4
26	1/2	3/4	1 1/2	1 3/4

FLOOR BEAM 20	T1	T2	T3	T4
STR.				
25	9/16	3/4	1 1/2	1 11/16
26	1/2	3/4	1 1/2	1 3/4

FLOOR BEAM 21	T1	T2	T3	T4
STR.				
25	9/16	3/4	1 1/2	1 11/16
26	9/16	11/16	1 9/16	1 11/16

FLOOR BEAM 22	T1	T2	T3	T4
STR.				
27	5/8	3/4	1 1/2	1 5/8
28	9/16	11/16	1 9/16	1 11/16

FLOOR BEAM 23	T1	T2	T3	T4
STR.				
27	5/8	11/16	1 9/16	1 5/8
28	5/8	11/16	1 9/16	1 5/8

FLOOR BEAM 24	T1	T2	T3	T4
STR.				
29	11/16	11/16	1 9/16	1 9/16
30	5/8	5/8	1 5/8	1 5/8

FLOOR BEAM 25	T1	T2	T3	T4
STR.				
31	11/16	5/8	1 5/8	1 9/16
32	11/16	5/8	1 5/8	1 9/16

FLOOR BEAM 26	T1	T2	T3	T4
STR.				
31	3/4	5/8	1 5/8	1 1/2
32	11/16	9/16	1 11/16	1 9/16

FLOOR BEAM 27	T1	T2	T3	T4
STR.				
31	3/4	9/16	1 11/16	1 1/2
32	11/16	9/16	1 11/16	1 9/16

FLOOR BEAM 28	T1	T2	T3	T4
STR.				
33	3/4	9/16	1 11/16	1 1/2
34	3/4	1/2	1 3/4	1 1/2

FLOOR BEAM 29	T1	T2	T3	T4
STR.				
33	13/16	1/2	1 3/4	1 7/16
34	3/4	1/2	1 3/4	1 1/2

FLOOR BEAM 30	T1	T2	T3	T4
STR.				
35	13/16	1/2	1 3/4	1 7/16
36	13/16	7/16	1 13/16	1 7/16

FLOOR BEAM 31	T1	T2	T3	T4
STR.				
37	7/8	1/2	1 3/4	1 3/8
38	13/16	7/16	1 13/16	1 7/16

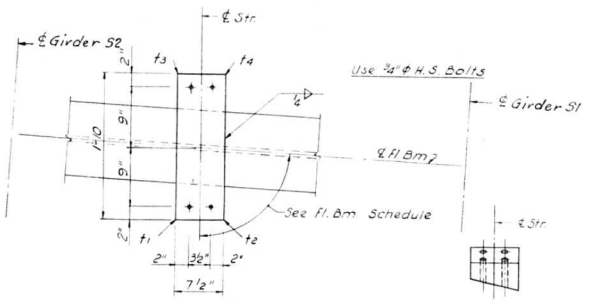
FLOOR BEAM 32	T1	T2	T3	T4
STR.				
37	7/8	7/16	1 13/16	1 3/8
38	7/8	7/16	1 13/16	1 3/8

FLOOR BEAM 33	T1	T2	T3	T4
STR.				
39	15/16	7/16	1 13/16	1 5/16
40	7/8	3/8	1 7/8	1 3/8

FLOOR BEAM 34	T1	T2	T3	T4
STR.				
41	15/16	7/16	1 13/16	1 5/16
42	15/16	3/8	1 7/8	1 5/16

FLOOR BEAM 35	T1	T2	T3	T4
STR.				
43	15/16	3/8	1 7/8	1 5/16
44	15/16	3/8	1 7/8	1 5/16

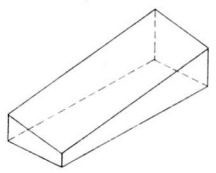
FLOOR BEAM 36	T1	T2	T3	T4
STR.				
45	1	3/8	1 7/8	1 1/4
46	15/16	3/8	1 7/8	1 5/16



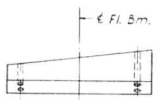
PLAN



END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS S4 THRU S7

POPLAR STREET BRIDGE APPROACHES
RAMP "S"

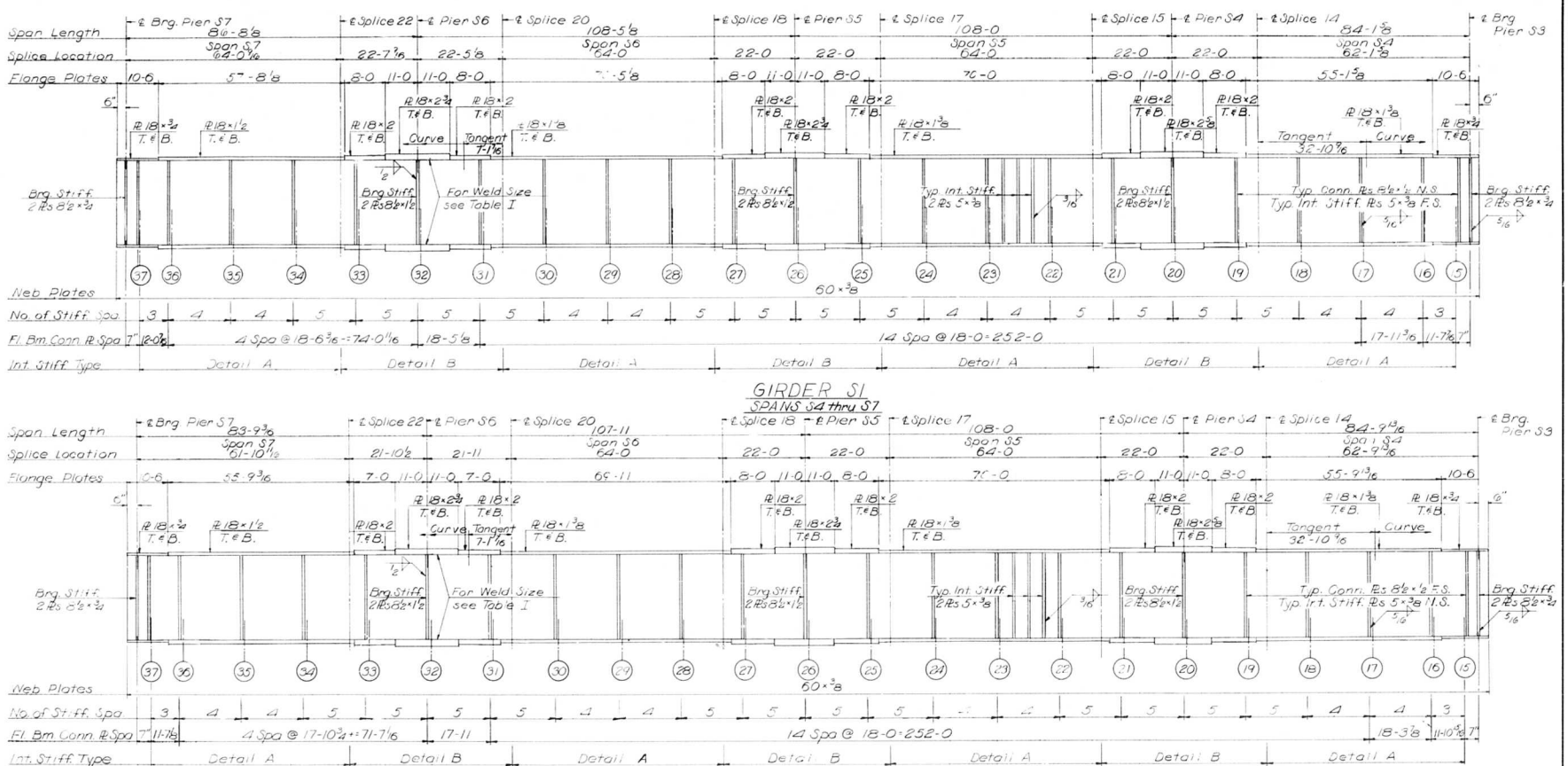
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
337 or 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.—70	82-3HVF & E-1	ST. CLAIR	247	208
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER S1
SPANS S4 thru S7

GIRDER S2
SPANS S4 thru S7

Notes.
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 335.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No's. 348, 349 and 350.

DESIGNED BY F. M. S.
DRAWN BY D. C. H.
CHECKED BY A. T.
APPROVED BY S. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

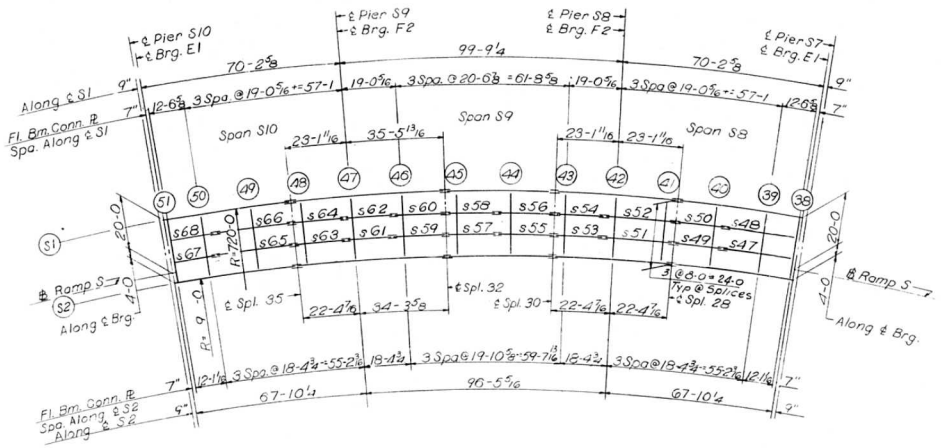
GIRDERS S1 AND S2
SPANS S4 THRU S7
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F A I RT.70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 338 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	209
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		



PLAN

SPANS S8 THRU S10

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

ELEVATION TOP OF GIRDER WEB

		GIR. S2	GIR. S1	DIFF.
CL. BRG.		471.397	473.317	1.920
FLOOR BEAM	38	471.421	473.340	1.919
FLOOR BEAM	39	471.907	473.828	1.921
FLOOR BEAM	40	472.647	474.568	1.921
SPLICE	28	473.227	475.147	1.920
FLOOR BEAM	41	473.393	475.313	1.920
FLOOR BEAM	42	474.157	476.077	1.920
FLOOR BEAM	43	474.922	476.842	1.920
SPLICE	30	475.087	477.007	1.920
FLOOR BEAM	44	475.727	477.647	1.920
FLOOR BEAM	45	476.527	478.447	1.920
SPLICE	32	476.687	478.607	1.920
FLOOR BEAM	46	477.310	479.230	1.920
FLOOR BEAM	47	478.031	479.951	1.920
FLOOR BEAM	48	478.752	480.672	1.920
SPLICE	35	478.907	480.827	1.920
FLOOR BEAM	49	479.487	481.407	1.920
FLOOR BEAM	50	480.227	482.147	1.920
FLOOR BEAM	51	480.714	482.635	1.921
CL. BRG.		480.737	482.657	1.920

BILL OF MATERIAL		
*Structural Steel	Lbs.	240,850

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 5480

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN
SPANS S8 THRU S10
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
339 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

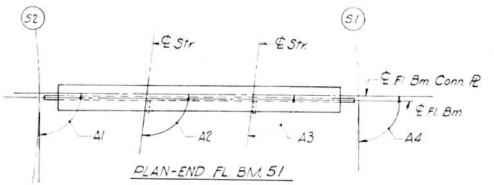
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-1	ST. CLAIR	247	210
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

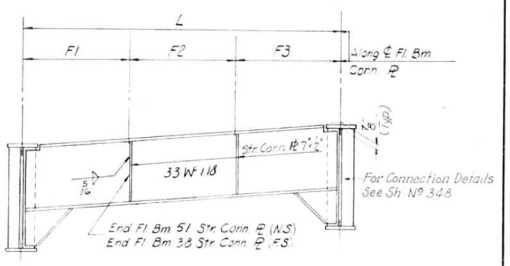
STR	L	S1	S2	S3	B1	B2
47	26 9 7/8		12 2 15/16	14 7	88.47.59	88.54.30
48	27 1 3/4		12 4 3/4	14 9	88.48.02	88.54.28
49	18 7 1/4	4 1/4		14 7	89.14.34	89.14.34
50	18 9 13/16	4 13/16		14 9	89.14.34	89.14.34
51	26 7 13/16	4 1/4	18 7 1/4	4 1/4	88.54.56	88.54.56
52	26 11 7/16	4 13/16	18 9 3/4	4 13/16	88.54.56	88.54.56
53	18 7 1/4	14 7		4 1/4	89.14.34	89.14.34
54	18 9 13/16	14 9		4 13/16	89.14.34	89.14.34
55	20 1 3/8	16 1 1/16		4 1/4	89.10.53	89.10.53
56	20 4 1/8	16 3 5/16		4 13/16	89.10.53	89.10.53
57	20 1 3/8	16 1 1/16		4 1/4	89.10.53	89.10.53
58	20 4 1/8	16 3 5/16		4 13/16	89.10.53	89.10.53
59	20 1 3/8	16 1 1/16		4 1/4	89.10.53	89.10.53
60	20 4 1/8	16 3 5/16		4 13/16	89.10.53	89.10.53
61	18 7 1/4	14 7		4 1/4	89.14.34	89.14.34
62	18 9 13/16	14 9		4 13/16	89.14.34	89.14.34
63	18 7 1/4	14 7		4 1/4	89.14.34	89.14.34
64	18 9 13/16	14 9		4 13/16	89.14.34	89.14.34
65	29 1 15/16	14 7		14 7	88.48.47	88.48.47
66	29 5 15/16	14 9		14 9	88.48.47	88.48.47
67	16 3 3/16	4 1/4	12 2 15/16		89.20.17	89.13.46
68	16 5 5/8	4 13/16	12 4 3/4		89.20.15	89.13.49

FLOOR BEAM DIMENSIONS

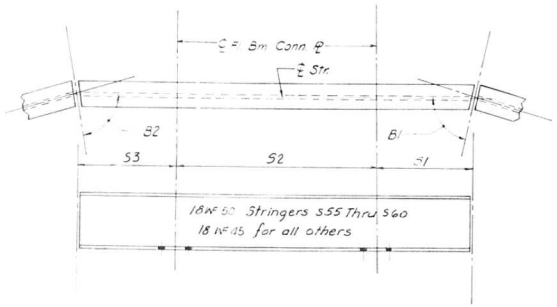
FL BM	L	F1	F2	F3	A1	A2	A3	A4
38	24	8	8	8	89.53.25	88.47.59	88.48.02	89.53.38
39	24	7 10 1/2	8	8 1 9/16	90.00.00	89.54.17	89.54.20	90.00.00
40	24	7 11 1/2	8	8 1/2	90.00.00	89.34.13	89.34.13	90.00.00
41	24	7 11 1/4	8	8 13/16	90.00.00	89.14.34	89.14.34	90.00.00
42	24	7 11 1/4	8	8 13/16	90.00.00	90.45.26	90.45.26	90.00.00
43	24	7 11 1/2	8	8 1/2	90.00.00	90.25.47	90.25.47	90.00.00
44	24	7 11 7/16	8	8 9/16	90.00.00	90.29.28	90.29.28	90.00.00
45	24	7 11 7/16	8	8 9/16	90.00.00	90.29.28	90.29.28	90.00.00
46	24	7 11 7/16	8	8 9/16	90.00.00	90.29.28	90.29.28	90.00.00
47	24	7 11 1/2	8	8 1/2	90.00.00	90.25.47	90.25.47	90.00.00
48	24	7 11 1/2	8	8 1/2	90.00.00	90.25.47	90.25.47	90.00.00
49	24	7 10 3/16	8	8 1 13/16	90.00.00	90.00.00	90.00.00	90.00.00
50	24	7 11 9/16	8	8 7/16	90.00.00	89.39.56	89.39.53	90.00.00
51	24	8	8	8	90.06.35	90.46.14	90.46.11	90.06.22



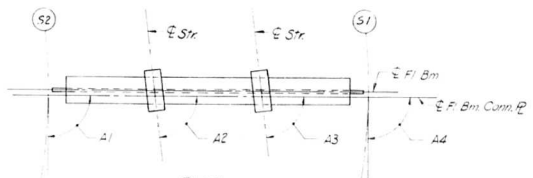
PLAN-END FL. BM. 51



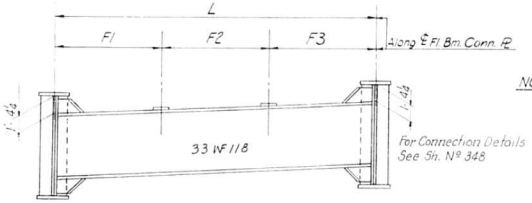
ELEVATION



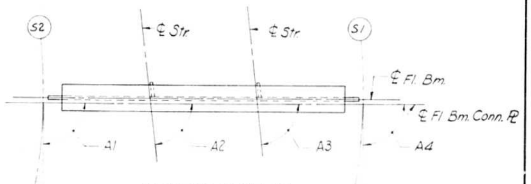
TYPICAL STRINGER



PLAN



ELEVATION
INTERIOR FLOOR BEAM 39 - 50
LOOKING TOWARDS INCREASING STATION



PLAN-END FL. BM. 38
END FLOOR BEAM 38 AND 51
LOOKING TOWARDS INCREASING STATION

NOTES:
Length L of Stringers and Fl. Bms. is correct as given in the table except the increment lengths are given to the nearest 1/16".
All dimensions are in the horizontal plane.
For Connection Plate Det. See Sh. Nº 348

DESIGNED BY
DRAWN BY JK
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER AND FLOOR BEAM SCHEDULE

SPANS S8 THRU S10
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 340 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I.-70	82-3HVF & E-1	ST. CLAIR	247	211
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

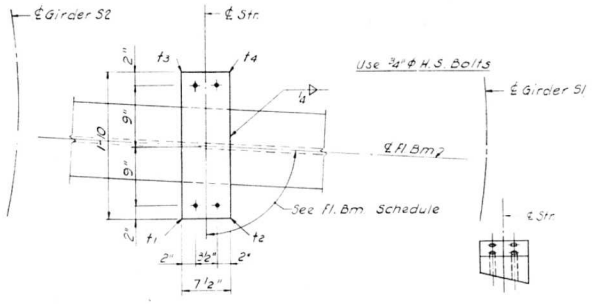
FLOOR BEAM 39 THRU 40	T1	T2	T3	T4
STR. 47 THRU 50	1	3/8	1 7/8	1 1/4

FLOOR BEAM 41 THRU 43	T1	T2	T3	T4
STR. 51 THRU 54	1	3/8	1 7/8	1 1/4

FLOOR BEAM 44 THRU 45	T1	T2	T3	T4
STR. 55 THRU 58	1	3/8	1 7/8	1 1/4

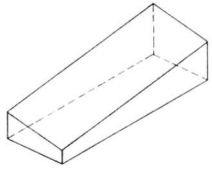
FLOOR BEAM 46 THRU 48	T1	T2	T3	T4
STR. 59 THRU 64	1	3/8	1 7/8	1 1/4

FLOOR BEAM 49 THRU 50	T1	T2	T3	T4
STR. 65 THRU 68	1	3/8	1 7/8	1 1/4

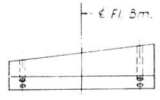


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS S8 THRU S10

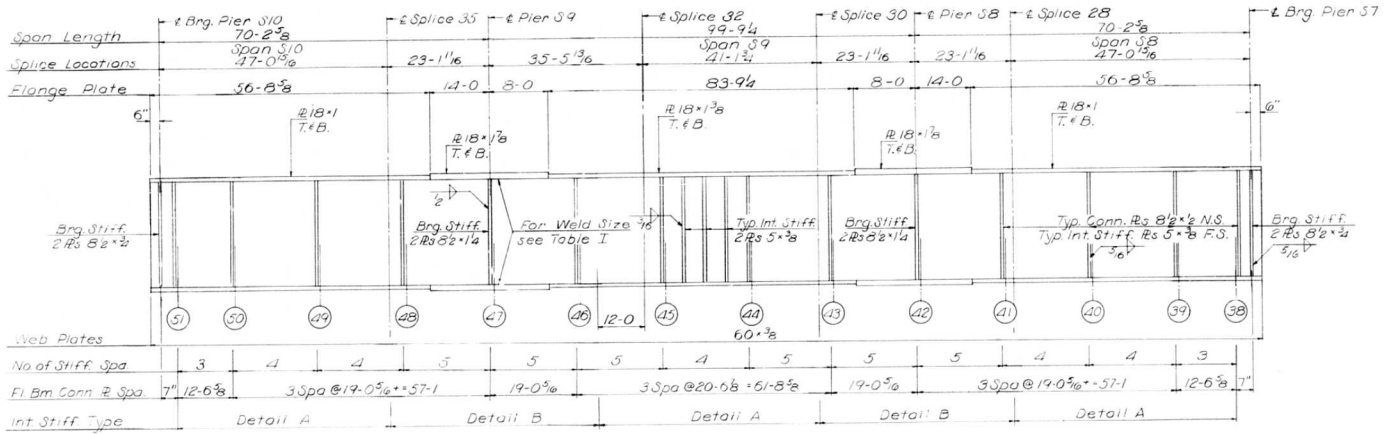
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

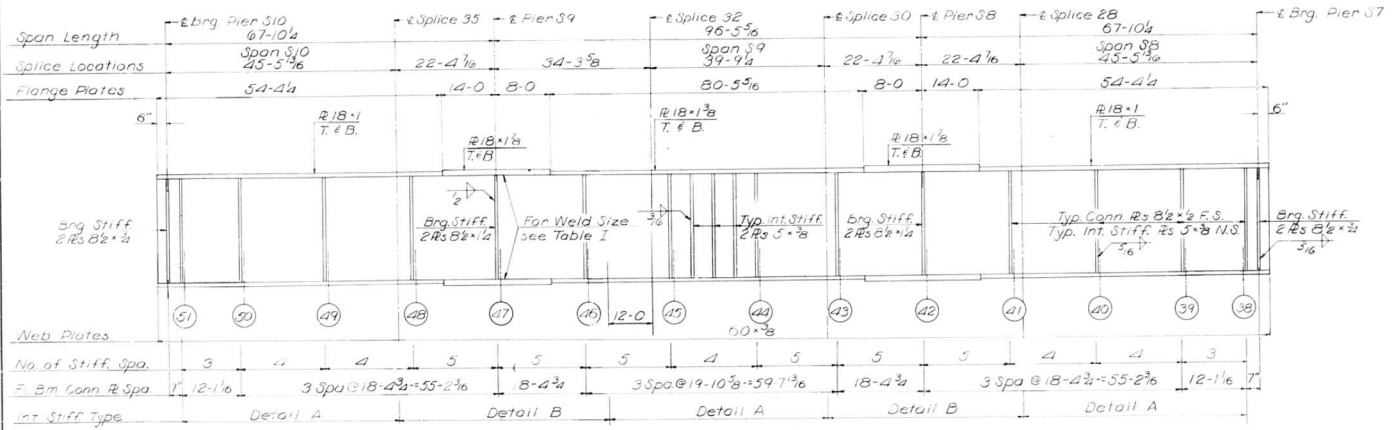
H. W. LOCHNER, INC
ENGINEERS
CHICAGO, ILLINOIS

SHEET 34 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVF&E-1	ST. CLAIR	247	212
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER S1
SPANS S8 thru S10



GIRDER S2
SPANS S8 thru S10

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh. No. 339

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No's 348, 349, and 350.

DESIGNED BY E.N.S.
DRAWN BY D.C.H.
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

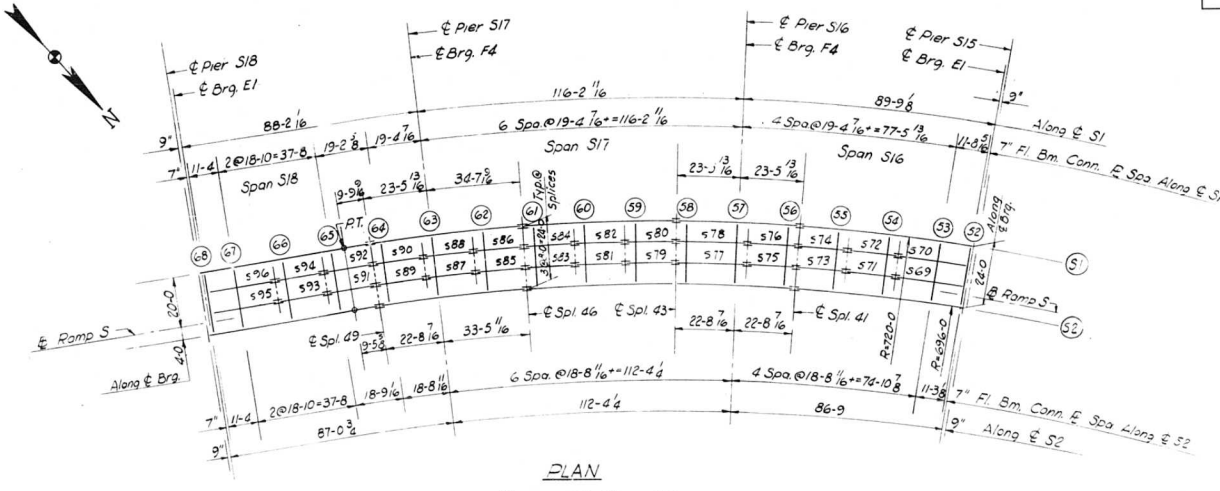
GIRDERS S1 AND S2
SPANS S8 THRU S10
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F A I RT 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 342 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVF & E-1	ST. CLAIR	247	213
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN

Spans S16 Thru S18

ELEVATION TOP OF GIRDER WEB

		GIR. S2	GIR. S1	DIFF.
CL. BRG.		493.444	495.364	1.920
FLOOR BEAM	52	493.438	495.359	1.921
FLOOR BEAM	53	493.321	495.241	1.920
FLOOR BEAM	54	493.127	495.047	1.920
FLOOR BEAM	55	492.933	494.853	1.920
SPLICE	41	492.779	494.699	1.920
FLOOR BEAM	56	492.714	494.634	1.920
FLOOR BEAM	57	492.404	494.324	1.920
FLOOR BEAM	58	492.094	494.014	1.920
SPLICE	43	492.029	493.949	1.920
FLOOR BEAM	59	491.701	493.621	1.920
FLOOR BEAM	60	491.284	493.204	1.920
FLOOR BEAM	61	490.868	492.788	1.920
SPLICE	46	490.779	492.699	1.920
FLOOR BEAM	62	490.382	492.156	1.774
FLOOR BEAM	63	489.878	491.467	1.589
FLOOR BEAM	64	489.373	490.783	1.410
SPLICE	49	489.266	490.640	1.374
FLOOR BEAM	65	488.767	490.005	1.238
FLOOR BEAM	66	488.133	489.199	1.066
FLOOR BEAM	67	487.500	488.414	.914
FLOOR BEAM	68	487.119	487.929	.809
CL. BRG.		487.099	487.904	.805

Note:
Dimensions locating Floor Beams are given to the Floor Beam Conn. Plate, see Sketch Sheet No. 183

BILL OF MATERIAL		
*Structural Steel	Lbs.	327,080

*Weight of Bearing Assemblies with Lead Plates and Anchor Bolts are Included as Structural Steel Est. Wt. 6570 Lbs.

DESIGNED BY
DRAWN BY JK
CHECKED BY
APPROVED BY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

FRAMING PLAN

SPANS S16 THRU S18

POPLAR STREET BRIDGE APPROACHES

RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 343 OF 526

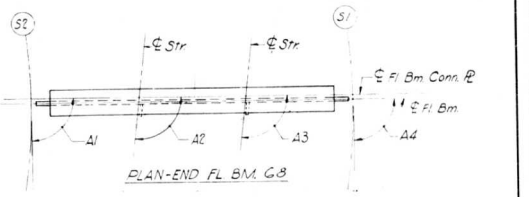
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVF8E-1	ST. CLAIR	247	214
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

STRINGER DIMENSIONS

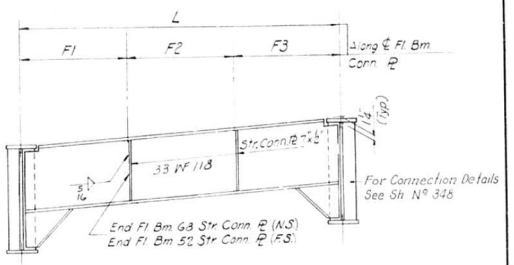
STR	L	S1	S2	S3	B1	B2
69	26 3 7/8		11 4 7/8	14 11	88.49.13	88.55.44
70	26 7 5/8		11 6 9/16	15 1 1/16	88.49.15	88.55.41
71	18 11 5/16	4 1/4		14 11	89.13.45	89.13.45
72	19 1 7/8	4 13/16		15 1 1/16	89.13.45	89.13.45
73	18 11 5/16	4 1/4		14 11	89.13.45	89.13.45
74	19 1 7/8	4 13/16		15 1 1/16	89.13.45	89.13.45
75	18 11 5/16	4 1/4		14 11	89.13.45	89.13.45
76	19 1 7/8	4 13/16		15 1 1/16	89.13.45	89.13.45
77	26 11 13/16	4 1/-	18 11 1/4	4 1/4	88.54.07	88.54.07
78	27 3 1/2	4 13/16	19 1 7/8	4 13/16	88.54.07	88.54.07
79	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
80	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
81	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
82	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
83	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
84	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
85	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
86	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
87	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
88	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
89	18 11 5/16	14 11		4 1/4	89.13.45	89.13.45
90	19 1 7/8	15 1 1/16		4 13/16	89.13.45	89.13.45
91	18 10 5/8	14 10 5/8		4	89.25.05	89.48.08
92	18 11 15/16	14 11 15/16		4	89.25.09	89.48.04
93	18 10	14 10		4	90.00.00	90.00.00
94	18 10	14 10		4	90.00.00	90.00.00
95	26 2	14 10	11 4		90.00.00	90.00.00
96	26 2	14 10	11 4		90.00.00	90.00.00

FLOOR BEAM DIMENSIONS

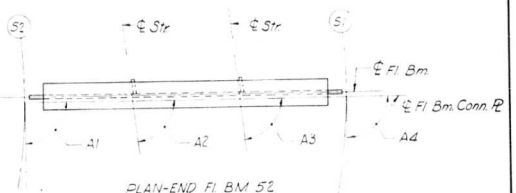
FL BM	L	F1	F2	F3	A1	A2	A3	A4
52	24	8	8	8	89.53.25	88.49.13	88.49.15	89.53.38
53	24	7 10 9/16	8	8 1 7/16	90.00.00	89.51.25	89.51.28	90.00.00
[illegible]	24	7 11 1/2	8	8 1/2	90.00.00	89.33.24	89.33.24	90.00.00
55	24	7 11 1/2	8	8 1/2	90.00.00	89.33.24	89.33.24	90.00.00
56	24	7 11 1/2	8	8 1/2	90.00.00	89.33.24	89.33.24	90.00.00
57	24	7 11 3/16	8	8 13/16	90.00.00	89.13.45	89.13.45	90.00.00
58	24	7 11 3/16	8	8 13/16	90.00.00	90.46.15	90.46.15	90.00.00
59	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
60	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
61	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
62	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
63	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
64	24	7 11 1/2	8	8 1/2	90.00.00	90.26.36	90.26.36	90.00.00
65	24	7 11 13/16	8	8 3/16	90.00.00	90.11.52	90.11.56	90.00.00
66	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
67	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00
68	24	8	8	8	90.00.00	90.00.00	90.00.00	90.00.00



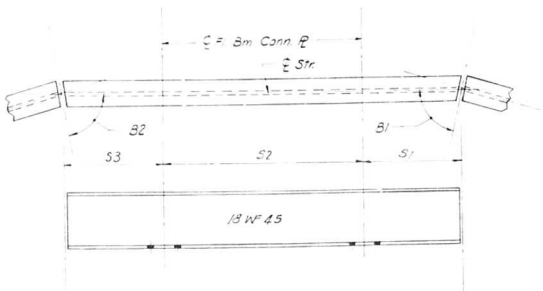
PLAN-END FL BM. G8



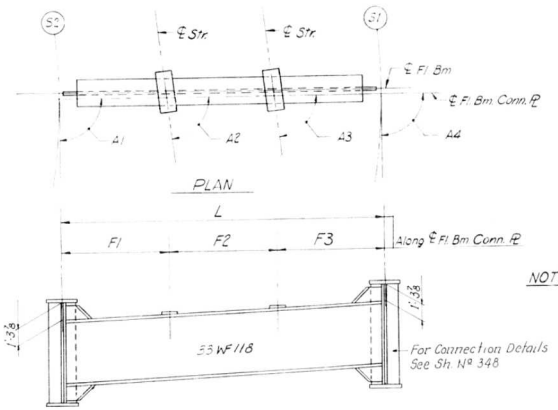
ELEVATION



PLAN-END FL BM. 52
END FLOOR BEAM 52 AND G8
LOOKING TOWARDS INCREASING STATION



TYPICAL STRINGER



PLAN

ELEVATION
INTERIOR FLOOR BEAM 53 THRU 67
LOOKING TOWARDS INCREASING STATION

NOTES: Length L of Stringers and Fl. Bms. is correct as given in the Table except the increment "lengths are given To the nearest "lo".

All dimensions are in the horizontal plane.

For Connection Plate Det. see Sh. N° 348

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER AND FLOOR BEAM SCHEDULE

SPANS S16 THRU S18

POPLAR STREET BRIDGE APPROACHES RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF8E-1

DESIGNED BY	
DRAWN BY	JTK
CHECKED BY	
APPROVED BY	

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 344 of 506

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-3HVF&E-I	ST. CLAIR	247	215
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

FLOOR BEAM 53 THRU 55	T1	T2	T3	T4
STR. 69 THRU 74	1 7/16	7/8	1 3/16	5/8

FLOOR BEAM 56	T1	T2	T3	T4
STR. 75 THRU 78	1 1/2	15/16	1 1/8	9/16

FLOOR BEAM 59 THRU 61	T1	T2	T3	T4
STR. 79 THRU 84	1 9/16	1	1 1/16	1/2

FLOOR BEAM 62	T1	T2	T3	T4
STR.				
85	1 5/8	1 1/16	1	7/16
86	1 11/16	1 1/8	15/16	3/8

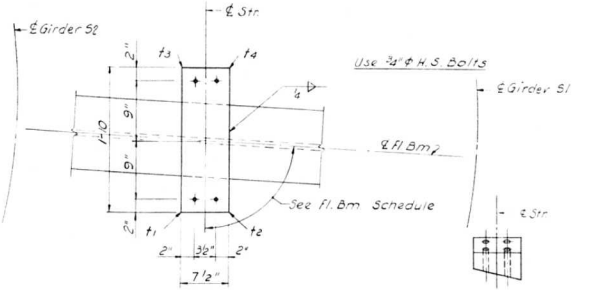
FLOOR BEAM 63	T1	T2	T3	T4
STR.				
87	1 5/8	1 1/8	15/16	7/16
88	1 5/8	1 1/8	15/16	7/16

FLOOR BEAM 64	T1	T2	T3	T4
STR.				
89	1 9/16	1 1/8	15/16	1/2
90	1 5/8	1 3/16	7/8	7/16

FLOOR BEAM 65	T1	T2	T3	T4
STR.				
91	1 5/8	1 1/4	13/16	7/16
92	1 11/16	1 1/4	13/16	3/8

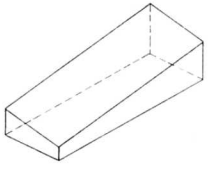
FLOOR BEAM 66	T1	T2	T3	T4
STR.				
93	1 5/8	1 1/4	13/16	7/16
94	1 5/8	1 5/16	3/4	7/16

FLOOR BEAM 67	T1	T2	T3	T4
STR.				
95	1 9/16	1 5/16	3/4	1/2
96	1 5/8	1 5/16	3/4	7/16

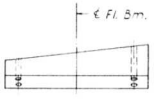


PLAN

END VIEW



ISOMETRIC VIEW



SIDE VIEW

SHIM DETAIL

Shim thickness t1, t2, t3 & t4 shown in the Table are orientated with the Plan View shown above.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRINGER SHIMS

SPANS S16 THRU S18

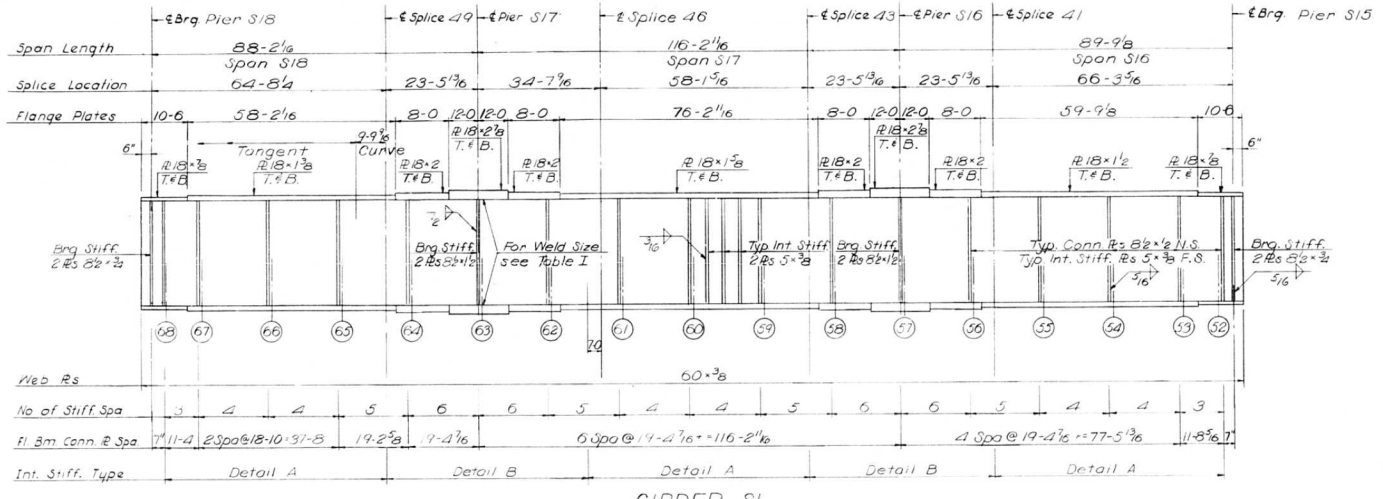
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I.RT.70 ST. CLAIR CO. SECTION 82-3HVF & E-I

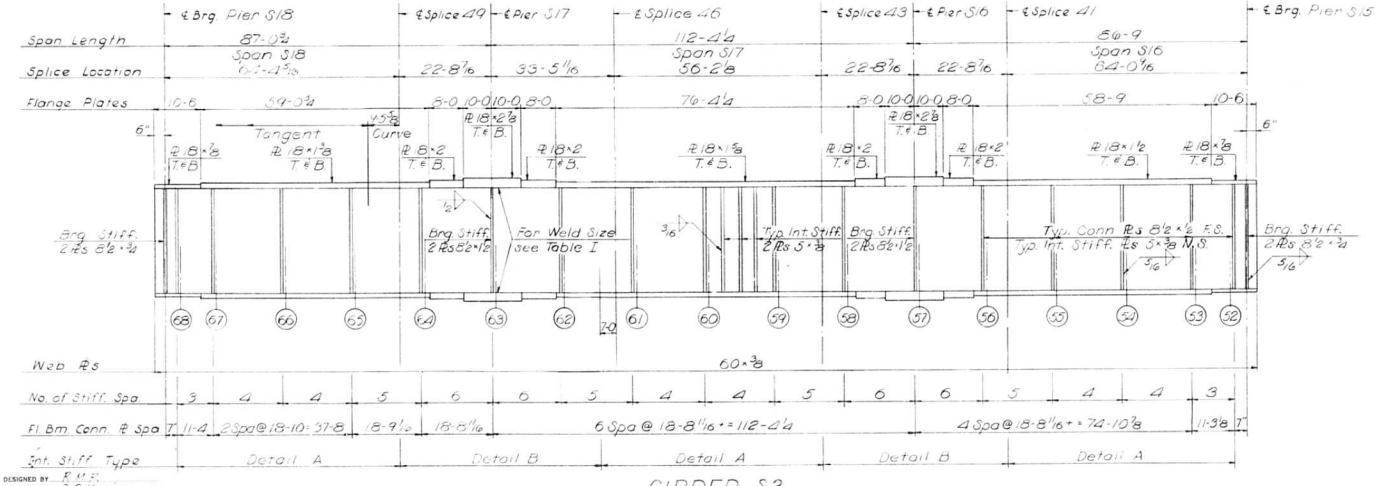
H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS	SHEET 345 OF 526

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVF & E-1	ST. CLAIR	247	216
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



GIRDER S1
SPANS S16 thru S18



GIRDER S2
SPANS S16 thru S18

Notes:
All Longitudinal Dimensions shown are given along ℄ of Web. See Sh No 343.

All Bearing Stiffeners and Connection Plates to be vertical.

For Splice, Stiffener, Connection Plate Details and Table I see Sh. No's. 348, 349, and 350.

DESIGNED BY F.M.S.
DRAWN BY S.G.H.
CHECKED BY A.F.
APPROVED BY R.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDERS S1 AND S2
SPANS S16 THRU S18

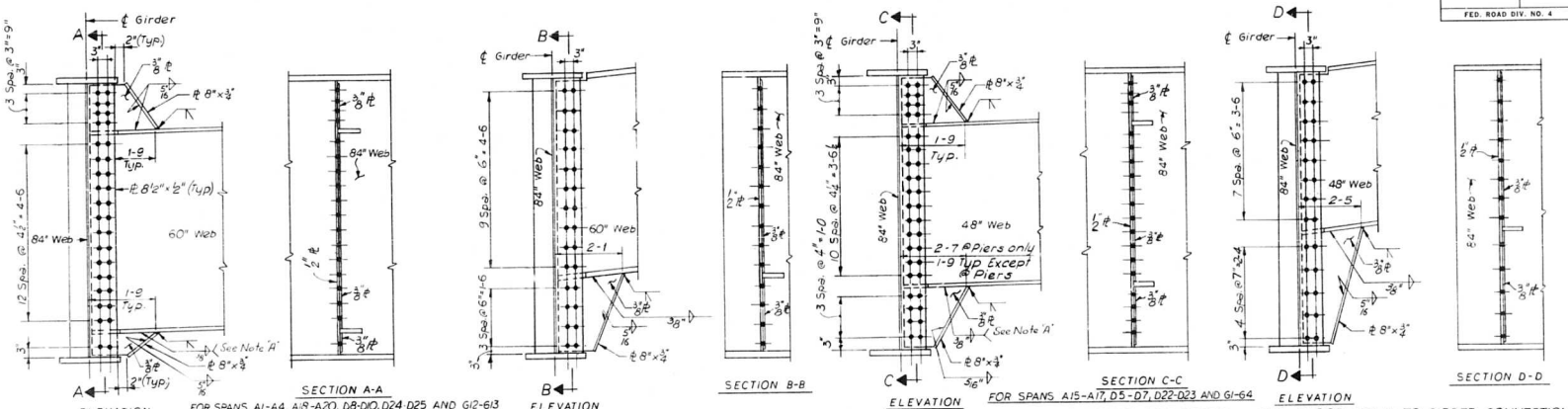
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 346 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.- 70	82-3HVF&E-1	ST. CLAIR	247	217
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



INTERIOR FLOOR BEAM TO GIRDER CONNECTION — FOR SPANS A1-A4, A18-A20, D8-D10, D24-D25 AND G12-G13

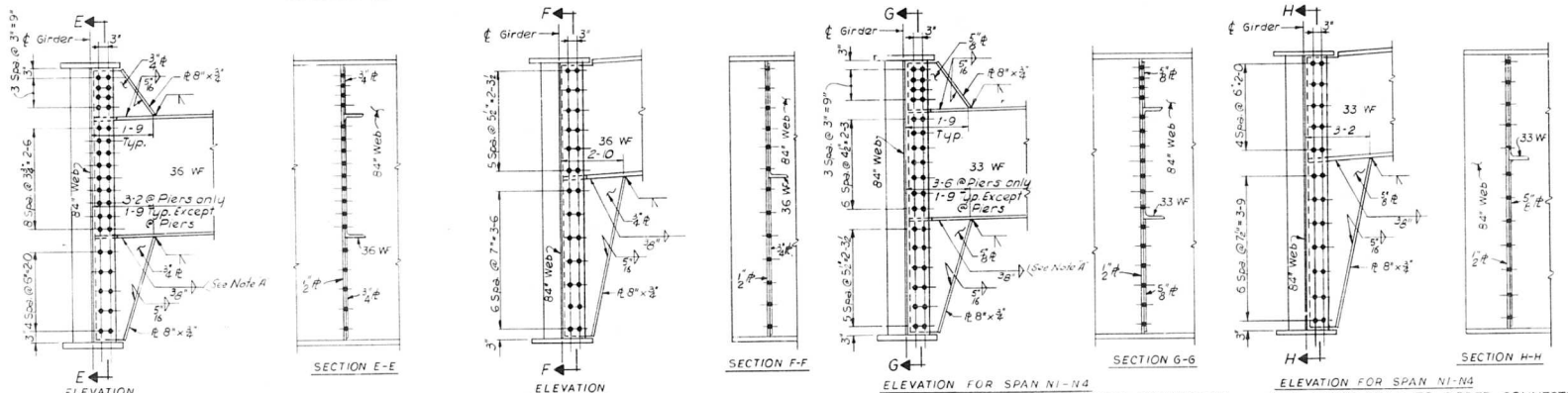
END FLOOR BEAM TO GIRDER CONNECTION

INTERIOR FLOOR BEAM TO GIRDER CONNECTION — FOR SPANS A15-A17, D5-D7, D22-D23 AND G1-G4

END FLOOR BEAM TO GIRDER CONNECTION

60" WEB FLOOR BEAMS

48" WEB FLOOR BEAMS



INTERIOR FLOOR BEAM TO GIRDER CONNECTION

END FLOOR BEAM TO GIRDER CONNECTION

ELEVATION FOR SPAN N1-N4

INTERIOR FLOOR BEAM TO GIRDER CONNECTION

ELEVATION FOR SPAN N1-N4

END FLOOR BEAM TO GIRDER CONNECTION

36 WF FLOOR BEAMS

FOR SPANS G5-G11, D1-D4, D18-D20 & H2-H4

33 WF FLOOR BEAMS

FOR SPAN N1-N4

84" WEB GIRDER

Note 'A'
5/16" Fillet Weld Typical
3/8" Fillet Weld @ Piers only

NOTES

For size of flange plate welds see Table I Sheet No. 350.
Weld Connection ℄'s to the top flange and tight fit at the bottom flange in areas designated as Detail "A". Weld Connection ℄'s to the bottom flange and tight fit at the top flange in areas designated as Detail "B".
For limits of Detail 'A' or Detail "B" see the Girder Elevation Drawings.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL FRAMING DETAILS

POPLAR STREET BRIDGE APPROACHES

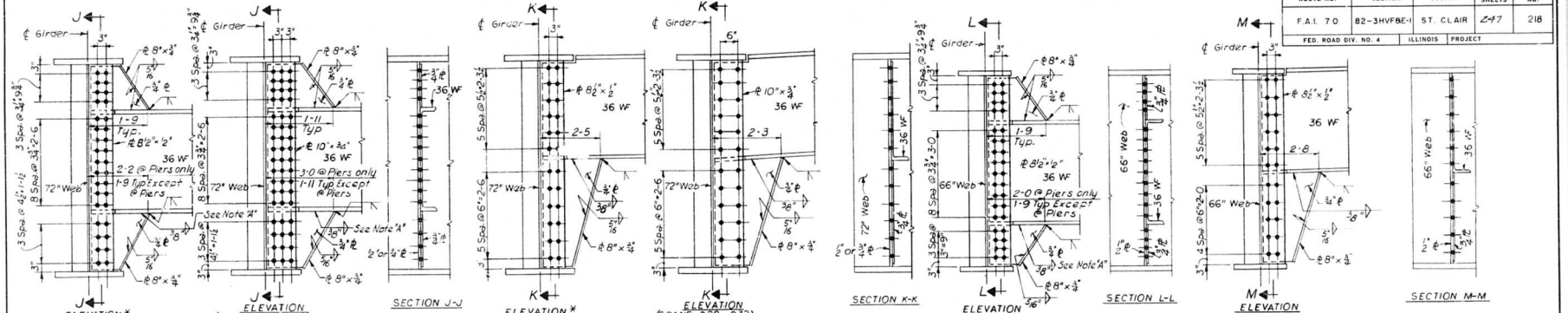
F.A.I RT. 70 ST. CLAIR CO. SECTION 82-HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 347 OF 526

DESIGNED BY T.T.
DRAWN BY P.A.S.
CHECKED BY A.A.
APPROVED BY K.A.

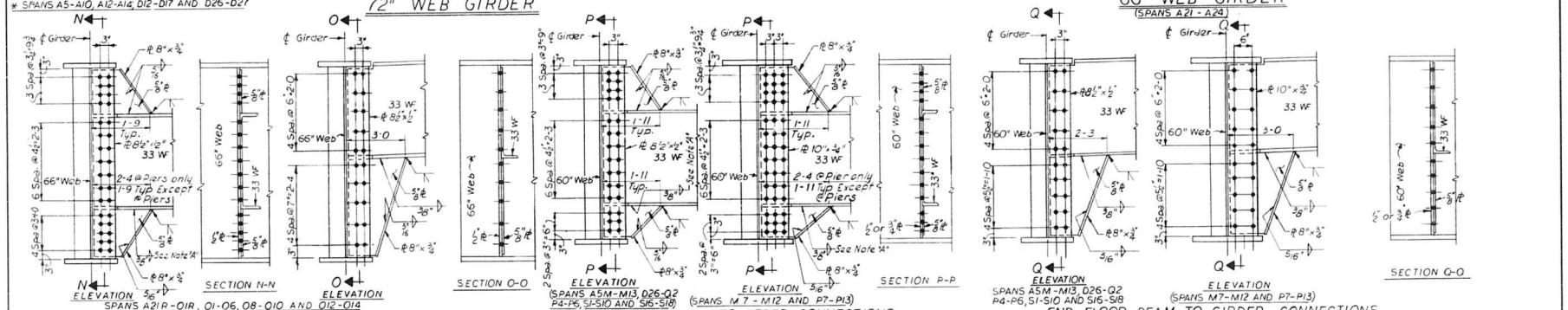
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	218
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



* SPANS A5-A10, A12-A14, D12-D17 AND D26-D27

72" WEB GIRDER

66" WEB GIRDER (SPANS A21 - A24)



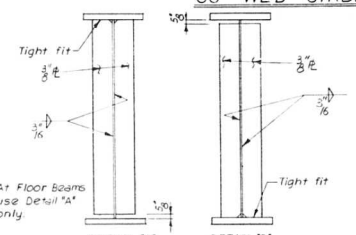
SPANS A21R-O1R, O1-O6, O8-O10 AND O12-O14

SPANS A5M-M13, D26-Q2 P4-P6, S1-S10 AND S16-S18

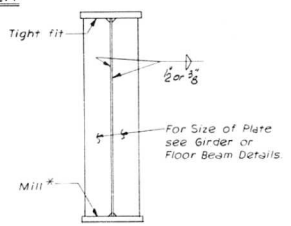
SPANS M7-M12 AND P7-P13

66" WEB GIRDER

60" WEB GIRDER

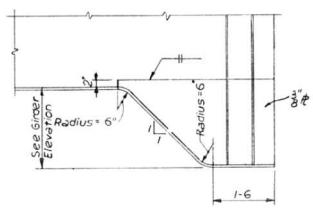


INTERMEDIATE STIFFENERS
FOR GIRDERS AND FLOOR BEAMS

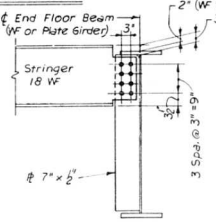


* At Floor Beams mill plate at upper flange and tight fit at lower flange.

BEARING STIFFENERS
FOR GIRDERS AND FLOOR BEAMS



HAUNCH DETAIL
For Location see Girder Elevation



STRINGER TO END FLOOR BEAM CONNECTION

Note "A"
5/16" Fillet weld Typical
3/8" Fillet weld @ Piers only

NOTE:
For NOTES see Sheet No. 347

DESIGNED BY TT
DRAWN BY PAS
CHECKED BY AA
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STEEL FRAMING AND MISCELLANEOUS DETAILS
POPLAR STREET BRIDGE APPROACHES

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

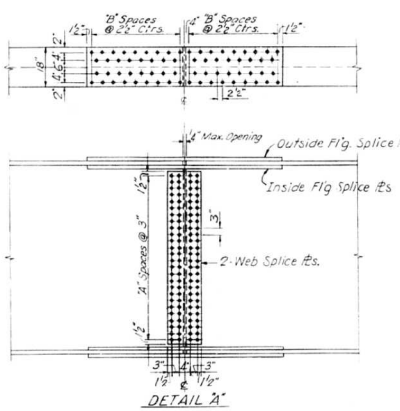
SHEET 348 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.–70	82-3HVF & E-1	ST. CLAIR	247	219
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

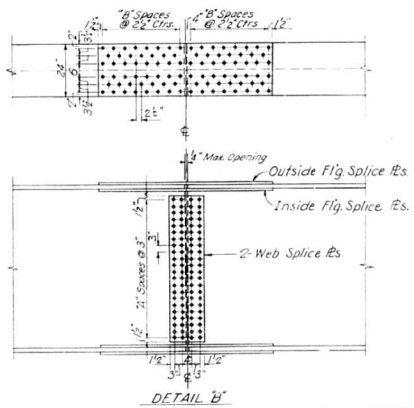
LOCATION	SPLICE NO.	DWG. NO.	DETAIL	GIRDER SECTION		WEB SPLICE			FLANGE SPLICE		
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B
Rdwy "A"	2,3,4	186	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{3}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	5,6	186	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 1'2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	7	186	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{7}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	1 × 1 × 7-3	4-5 × 1/4 × 7-3	16
	10, 11, 12, 13	190	A	$\frac{3}{8}$ × 72	18 × 1	——	2-13 × $\frac{3}{8}$ × 5-6	2	2-18 × 1/2 × 3-11	4-8 × $\frac{5}{8}$ × 3-11	8
	17, 18, 20, 21	191	A	$\frac{3}{8}$ × 72	18 × 1 1'2	——	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	26, 27, 29	196	A	$\frac{3}{8}$ ℄ 1'2 × 72	18 × 1 $\frac{3}{4}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	30	196	A	$\frac{3}{8}$ ℄ 1'2 × 72	18 × 1 $\frac{7}{8}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × 1 × 7-3	4-8 × 1/8 × 7-3	16
	35	200	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{5}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	36, 38, 39	200	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{3}{4}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	44	204	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{5}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	46, 47	204	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{3}{4}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	48	204	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	53	208	A	$\frac{3}{8}$ ℄ 1'2 × 66	18 × 1 $\frac{3}{8}$	2-64 × 1/16 × 5-0	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	54, 56, 57, 59	208	A	$\frac{3}{8}$ ℄ 1'2 × 66	18 × 1 1/4	2-64 × 1/16 × 5-0	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{5}{8}$ × 4-9	4-8 × $\frac{3}{4}$ × 4-9	10
	61	208	A	$\frac{3}{8}$ ℄ 1'2 × 66	18 × 1 $\frac{3}{4}$	2-64 × 1/16 × 5-0	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
Rdwy "D"	3,4,6,7,9,10	212	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × 1/2 × 3-11	4-8 × $\frac{5}{8}$ × 3-11	8
	56, 67	212	A	$\frac{3}{8}$ ℄ 1'2 × 72	18 × 1/4	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × $\frac{5}{8}$ × 4-9	4-8 × $\frac{3}{4}$ × 4-9	10
	14	216	A	$\frac{3}{8}$ × 84	18 × $\frac{7}{8}$	——	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × 1/2 × 3-11	4-8 × $\frac{5}{8}$ × 3-11	8
	15, 16, 17	216	A	$\frac{3}{8}$ × 84	18 × 1	——	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × 1/2 × 3-11	4-8 × $\frac{5}{8}$ × 3-11	8
	20	220	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/8	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{5}{8}$ × 4-9	4-8 × $\frac{3}{4}$ × 4-9	10
	21, 22	220	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1'2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	23	220	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{5}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	27, 29, 30, 31	225	A	$\frac{3}{8}$ ℄ 1'2 × 72	18 × 1 $\frac{3}{8}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	36, 37, 39, 40	229	A	$\frac{3}{8}$ ℄ 1'2 × 72	18 × 1/4	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-18 × $\frac{5}{8}$ × 4-9	4-8 × $\frac{3}{4}$ × 4-9	10

LOCATION	SPLICE NO.	DWG. NO.	DETAIL	GIRDER SECTION		WEB SPLICE			FLANGE SPLICE		
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B
	45	233	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × 1/2 × 3-11	4-8 × $\frac{5}{8}$ × 3-11	8
Rdwy "D" Contd.	46, 48, 49	233	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/4	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{5}{8}$ × 4-9	4-8 × $\frac{3}{4}$ × 4-9	10
	54	239	B	$\frac{3}{8}$ ℄ $\frac{5}{8}$ × 84	24 × 1 $\frac{3}{8}$	2-64 × 1/8 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-24 × $\frac{3}{4}$ × 4-9	4-11 × $\frac{7}{8}$ × 4-9	10
	55, 57	239	B	$\frac{3}{8}$ ℄ $\frac{5}{8}$ × 84	24 × 1'2	2-64 × 1/8 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-24 × $\frac{3}{4}$ × 4-9	4-11 × $\frac{7}{8}$ × 4-9	10
	58, 60	239	B	$\frac{3}{8}$ ℄ $\frac{5}{8}$ × 84	24 × 1 $\frac{5}{8}$	2-64 × 1/8 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-24 × $\frac{7}{8}$ × 5-7	4-11 × 1 × 5-7	12
	61	239	B	$\frac{3}{8}$ ℄ $\frac{5}{8}$ × 84	24 × 1 $\frac{7}{8}$	2-64 × 1/8 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-24 × 1 × 6-5	4-11 × 1/8 × 6-5	14
	74	247	B	$\frac{3}{8}$ ℄ 1'2 × 72	24 × 1 $\frac{3}{4}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-24 × 1 × 6-5	4-11 × 1/8 × 6-5	14
	77, 84, 91 *	247	B	$\frac{3}{8}$ ℄ 1'2 × 72	24 × 1 $\frac{5}{8}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-24 × 1 × 6-5	4-11 × 1/8 × 6-5	14
	81, 88, 95	247	B	$\frac{3}{8}$ ℄ 1'2 × 72	24 × 1 $\frac{5}{8}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-24 × 1 × 6-5	4-11 × 1/8 × 6-5	14
	98*	247	B	$\frac{3}{8}$ ℄ 1'2 × 72	24 × 1 $\frac{3}{4}$	2-64 × 1/16 × 5-6	2-13 × $\frac{3}{8}$ × 5-6	21	2-24 × 1 × 6-5	4-11 × 1/8 × 6-5	14
Rdwy "G"	3	252	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1'2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	4,6	252	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{5}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	7, 9, 10	252	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/4	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	15, 16, 18, 19, 21, 22	256	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/8	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	27, 28, 30, 31	260	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/8	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	35	264	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1'2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	36	264	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1/4	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
Rdwy "H"	3, 7	268	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1 $\frac{5}{8}$	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
	4, 6	268	A	$\frac{3}{8}$ ℄ 1'2 × 84	18 × 1'2	2-64 × 1/16 × 6-6	2-13 × $\frac{3}{8}$ × 6-6	25	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14
Ramp "R"	14, 16, 15, 20	330	A	$\frac{3}{8}$ × 66	18 × 1'2	——	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	5, 7	326	A	$\frac{3}{8}$ × 66	18 × 1/2	——	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{3}{4}$ × 5-7	4-8 × $\frac{7}{8}$ × 5-7	12
	3, 9	326	A	$\frac{3}{8}$ × 66	18 × 1 $\frac{5}{8}$	——	2-13 × $\frac{3}{8}$ × 5-0	19	2-18 × $\frac{7}{8}$ × 6-5	4-8 × 1 × 6-5	14

* Require Fl'g. Fill Pls. 24 × $\frac{5}{8}$ × 3'-2"



DETAIL "A"



DETAIL "B"

DESIGNED BY A. A.
DRAWN BY D. H.
CHECKED BY S. K.
APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDER SPLICES

POPLAR STREET BRIDGE APPROACHES

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

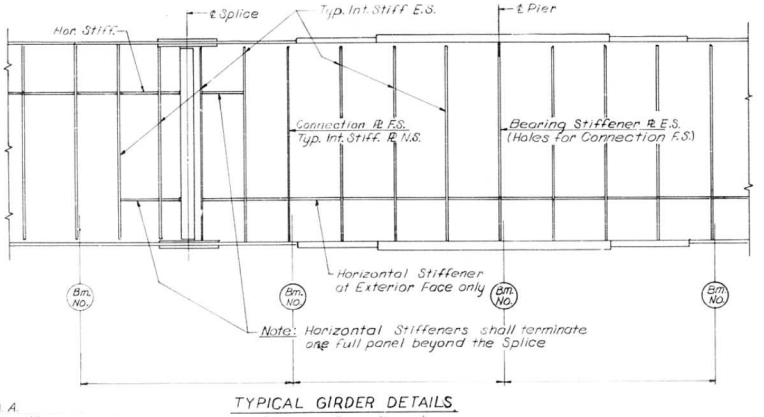
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 349 OF 528

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	220
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

LOCATION	SPLICE NO.	DWG NO.	DETAIL	GIRDER SECTION		WEB SPLICE			FLANGE SPLICE		
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B
Ramp "M"	4, 10, 13	273	A	3/8 × 60	18 × 1 7/8	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	7	273	A	3/8 × 60	18 × 1 3/4	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	22	277	B	3/8 × 60	24 × 1 3/4	2-64 × 1/16 × 4-6	2-13 × 3/8 × 4-6	17	2-24 × 7/8 × 5-7	4-11 × 1 × 5-7	12
	26	277	B	3/8 × 60	24 × 1 1/2	2-64 × 1/16 × 4-6	2-13 × 3/8 × 4-6	17	2-24 × 7/8 × 5-7	4-11 × 1 × 5 7	12
	28,30	277	B	3/8 × 60	24 × 1/2	2-64 × 1/16 × 4-6	2-13 × 3/8 × 4-6	17	2-24 × 3/4 × 4-9	4-11 × 7/8 × 4-9	10
	35,39	281	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
	37, 41	281	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
Ramp "W"	4, 10, 16	286	A	3/8 × 84	18 × 1/8	—	2-13 × 3/8 × 6-6	25	2-18 × 5/8 × 4-9	4-8 × 3/4 × 4-9	10
	7, 13, 19	286	A	3/8 × 84	18 × 1 1/8	—	2-13 × 3/8 × 6-6	25	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
Ramp "O"	2,9,6,3	290	A	3/8 × 66	18 × 1 3/4	—	2-13 × 3/8 × 5-0	19	2-8 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	23,22,20	294	A	3/8 × 66	18 × 1	—	2-13 × 3/8 × 5-0	19	2-18 × 5/8 × 4-9	4-8 × 3/4 × 4-9	10
	19	294	A	3/8 × 66	18 × 1/2	—	2-13 × 3/8 × 5-0	19	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
	32, 35	299	A	3/8 × 66	18 × 1/2	—	2-13 × 3/8 × 5-0	19	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	29	299	A	3/8 × 66	18 × 1 3/8	—	2-13 × 3/8 × 5-0	19	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	38	299	A	3/8 × 66	18 × 1 3/8	—	2-13 × 3/8 × 5-0	19	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	44,48	303	A	3/8 × 66	18 × 1/8	—	2-13 × 3/8 × 5-0	19	2-18 × 5/8 × 4-9	4-8 × 3/4 × 4-9	10
	45,47	303	A	3/8 × 66	18 × 1	—	2-13 × 3/8 × 5-0	19	2-18 × 1/2 × 3-11	4-8 × 5/8 × 3-11	8
Ramp "P"	4, 12	307	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
	8, 10	307	A	3/8 × 60	18 × 1 7/8	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	20, 27	311	A	3/8 × 60	18 × 1 7/8	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16

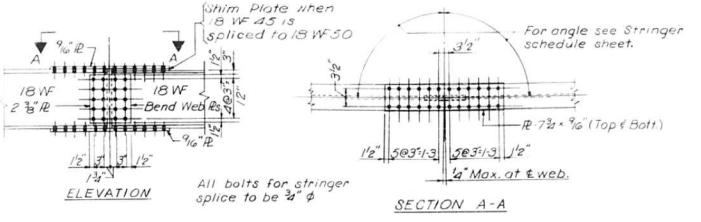
LOCATION	SPLICE NO	DWG NO.	DETAIL	GIRDER SECTION		WEB SPLICE			FLANGE SPLICE		
				WEB PLATE	FLANGE PLATES	FILL PLATES	SPLICE PLATES	A	OUTSIDE PLATES	INSIDE PLATES	B
Ramp "P" Cont'd	22, 26	311	A	3/8 × 60	18 × 2	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	32, 42	315	A	3/8 × 60	18 × 1/2	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	33, 35	315	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	36, 40	315	A	3/8 × 60	18 × 1 3/4	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
Ramp "Q"	2, 5	322	A	3/8 × 60	18 × 1	—	2-13 × 3/8 × 4-6	17	2-18 × 1/2 × 3-11	4-8 × 5/8 × 3-11	8
	3, 4	322	A	3/8 × 60	18 × 1	—	2-13 × 3/8 × 4-6	17	2-18 × 5/8 × 4-9	4-8 × 3/4 × 4-9	10
Ramp "S"	3	334	A	3/8 × 60	18 × 1 1/8	—	2-13 × 3/8 × 4-6	17	2-18 × 5/8 × 4-9	4-8 × 3/4 × 4-9	10
	5, 7, 9	334	A	3/8 × 60	18 × 1	—	2-13 × 3/8 × 4-6	17	2-18 × 1/2 × 3-11	4-8 × 5/8 × 3-11	8
	14,15,17,18,20	338	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
	22	338	A	3/8 × 60	18 × 1 1/2	—	2-13 × 3/8 × 4-6	17	2-18 × 3/4 × 5 7	4-8 × 7/8 × 5-7	12
	28, 35	342	A	3/8 × 60	18 × 1	—	2-13 × 3/8 × 4-6	17	2-18 × 1/2 × 3-11	4-8 × 5/8 × 3-11	8
	30	342	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 3/4 × 5-7	4-8 × 7/8 × 5-7	12
	32	342	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	41	346	A	3/8 × 60	18 × 1 1/2	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	43	346	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14
	46	346	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 1 × 7-3	4-8 × 1/4 × 7-3	16
	49	346	A	3/8 × 60	18 × 1 3/8	—	2-13 × 3/8 × 4-6	17	2-18 × 7/8 × 6-5	4-8 × 1 × 6-5	14



TYPICAL GIRDER DETAILS

(Exterior Face Shown)

Note: All Bearing Stiff. & Conn. ℞s to be Vertical.



STRINGER SPLICE

TABLE I	
Plate Size	Min. Weld
To 1/2" Inclusive	3/16
Over 1/2" to 3/4"	1/4"
Over 3/4" to 1 1/2"	5/16"
Over 1 1/2" to 2 1/4"	3/8"
Over 2 1/4" to 6"	1/2"

Work this Drawing with Sh. No. 349

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

GIRDER SPLICES AND DETAILS

POPLAR STREET BRIDGE APPROACHES

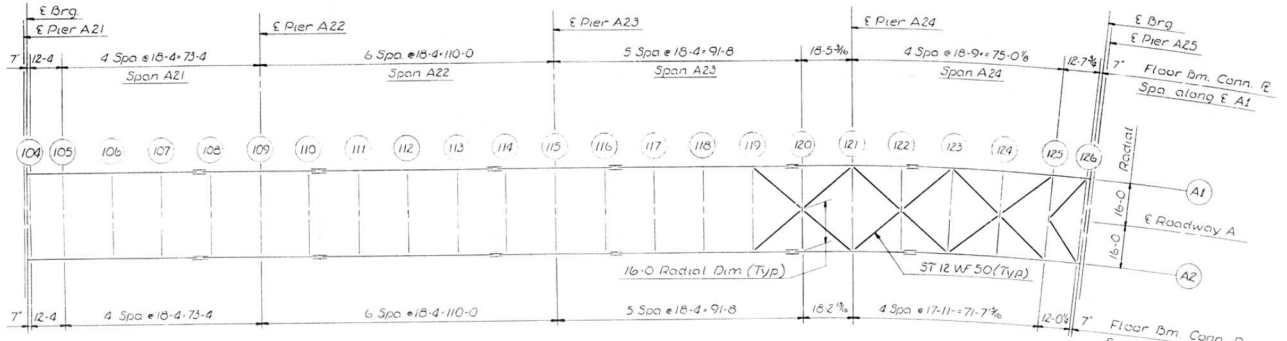
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

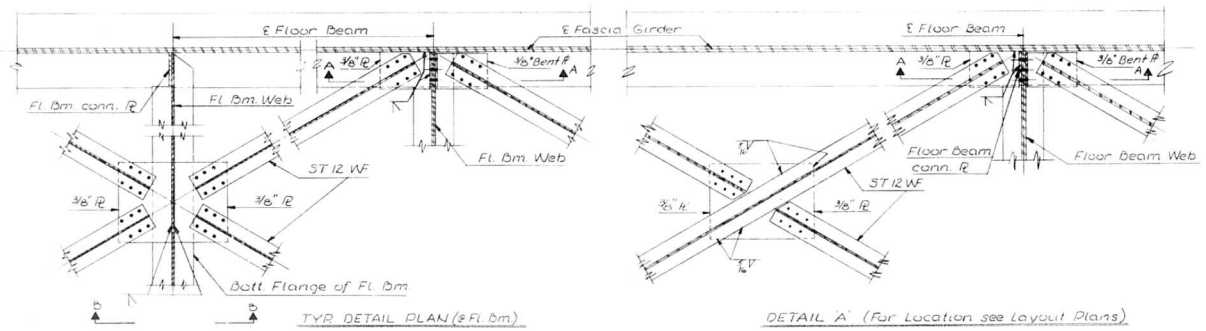
SHEET 350 OF 626

DESIGNED BY A.A.
DRAWN BY Hamilton
CHECKED BY S.K.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.—70	82-3HVF & E-1	ST. CLAIR	247	221
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

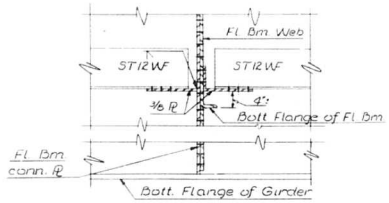


LAYOUT OF LATERAL BRACING
Spans A21 Thru A24

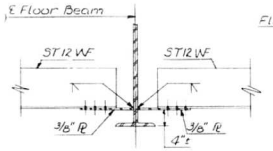


TYP. DETAIL PLAN (℄ Fl. Bm)

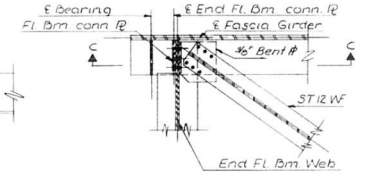
DETAIL 'A' (For Location see Layout Plans)



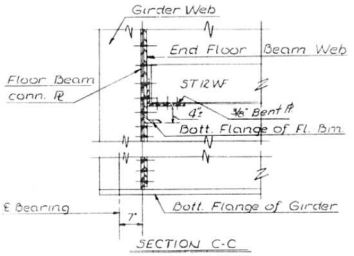
SECTION A-A



SECTION B-B



TYPICAL DETAIL PLAN AT END FLOOR BEAM



SECTION C-C

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY KA

Note:
All other connections not shown are similar.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

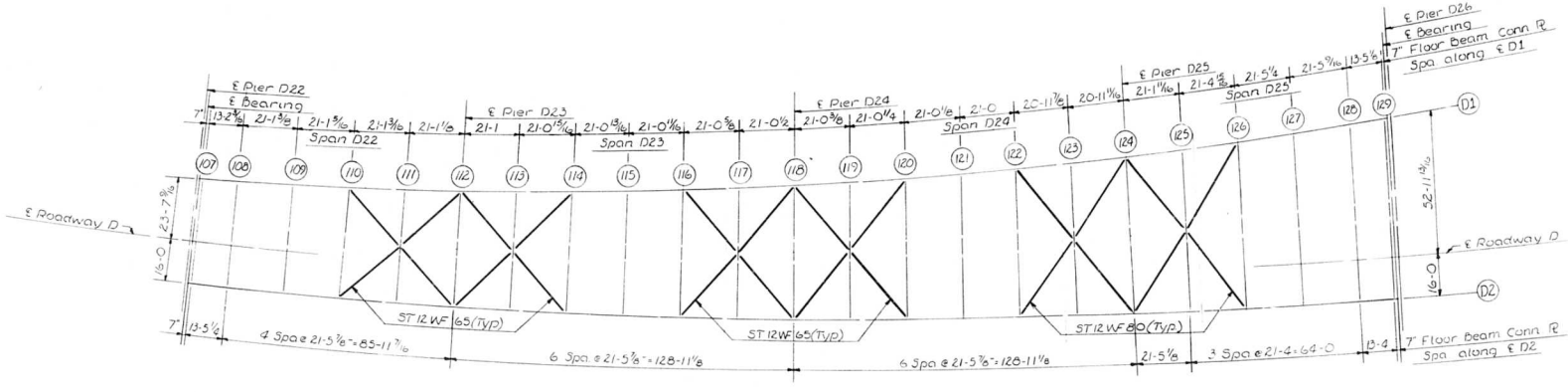
SPANS A21 THRU A24 AND TYPICAL DETAILS
POPLAR STREET BRIDGE APPROACHES
ROADWAY "A"

F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

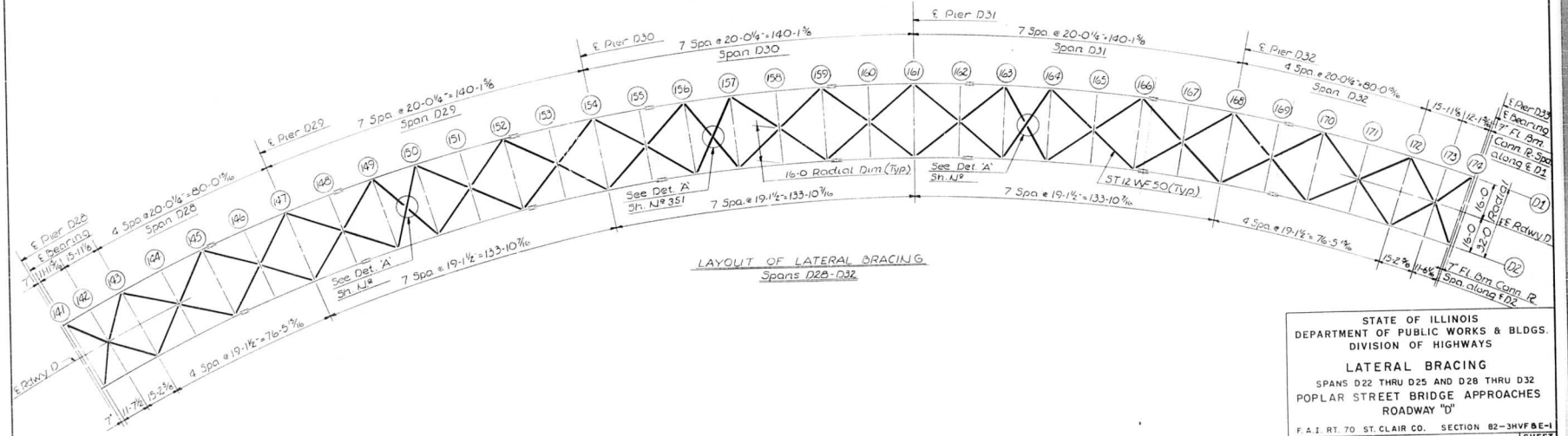
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
351 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I – 70	82-3HVF B E-1	ST. CLAIR	547	222
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
Spans D22-D25



LAYOUT OF LATERAL BRACING
Spans D28-D32

DESIGNED BY RMR
DRAWN BY LWA
CHECKED BY RMR
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

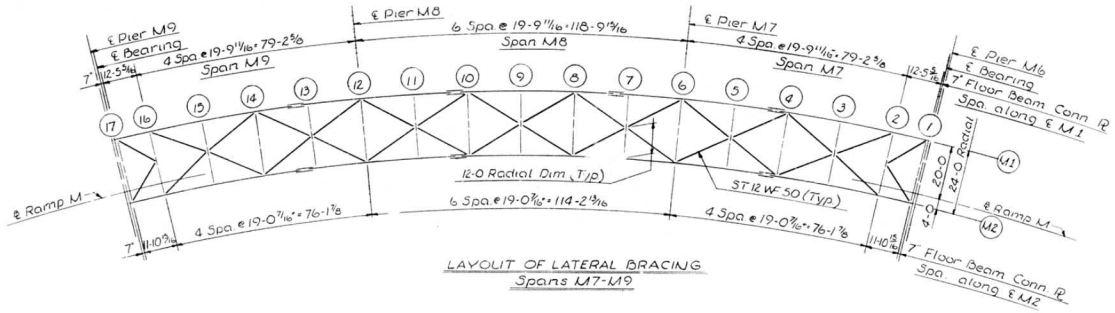
SPANS D22 THRU D25 AND D28 THRU D32
POPLAR STREET BRIDGE APPROACHES
ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF B E-1

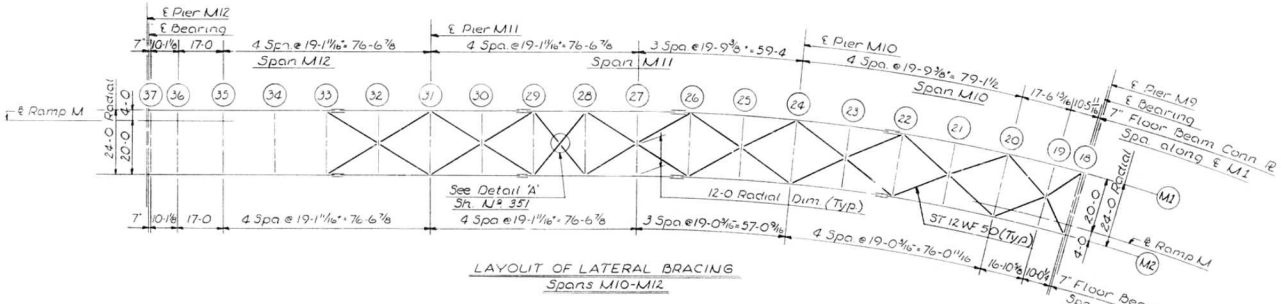
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 352 OF 526

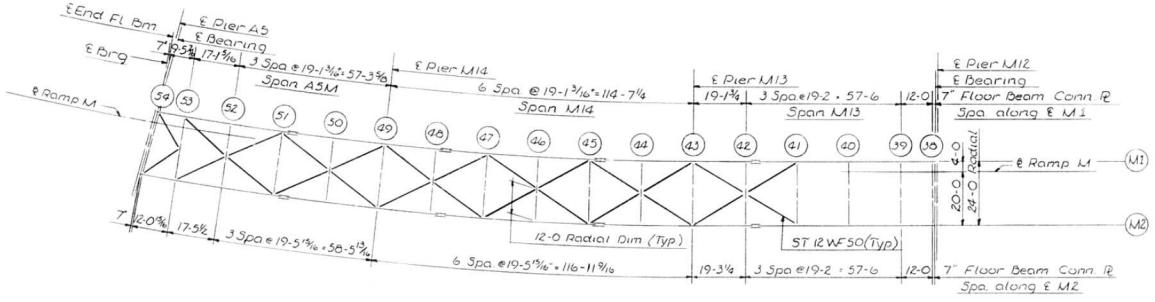
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. — 70	82-3HVF & E-1	ST. CLAIR	247	223
FED. ROAD DIST. NO. 4		ILLINOIS	PROJECT	



LAYOUT OF LATERAL BRACING
Spans M7-M9



LAYOUT OF LATERAL BRACING
Spans M10-M12



LAYOUT OF LATERAL BRACING
Spans M13, M14, & A5M

DESIGNED BY RMR
DRAWN BY JWA
CHECKED BY RMR
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

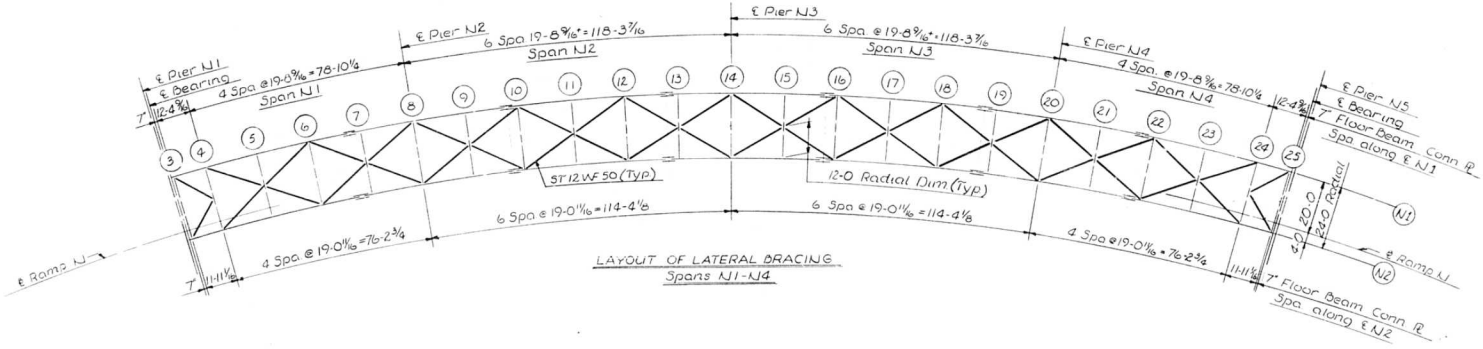
LATERAL BRACING
SPANS M7 THRU M14 AND A5-M
POPLAR STREET BRIDGE APPROACHES
RAMP "M"

F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

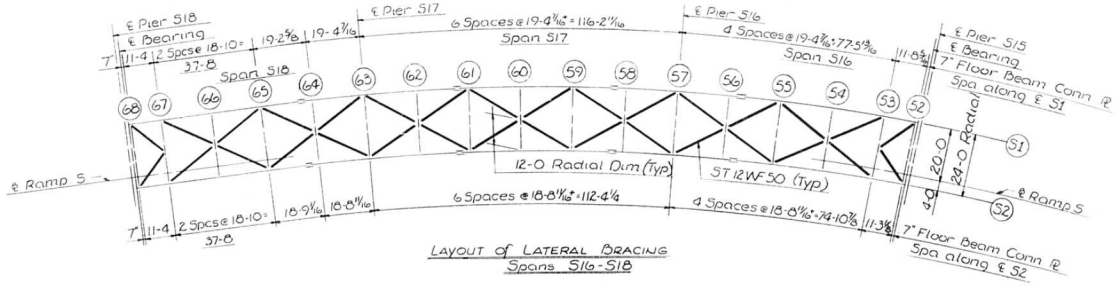
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
353 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. — 70	82-3HVF & E-1	ST. CLAIR	247	224
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
Spans NJ1-NJ4



LAYOUT OF LATERAL BRACING
Spans S16-S18

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

SPANS N1 THRU N4 AND S16 THRU S18
POPLAR STREET BRIDGE APPROACHES
RAMPS "N" & "S"

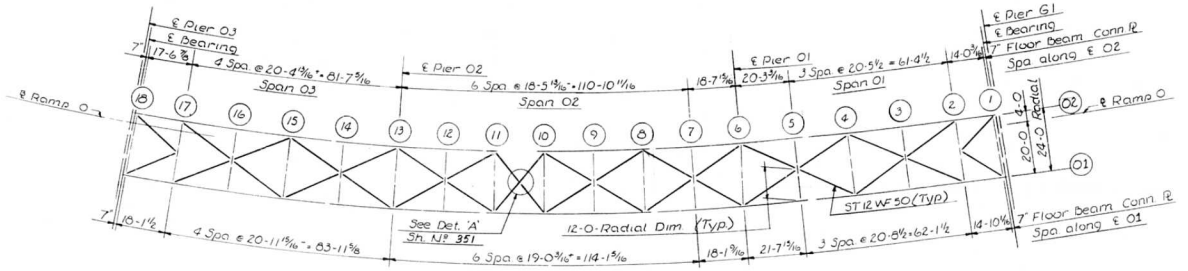
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

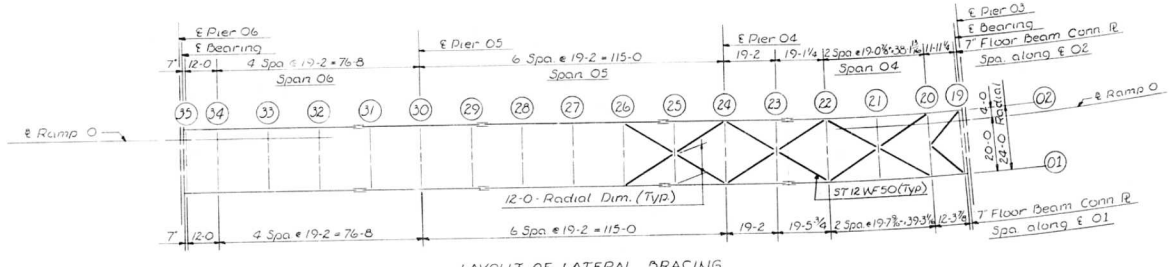
SHEET 154 OF 525

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY KA

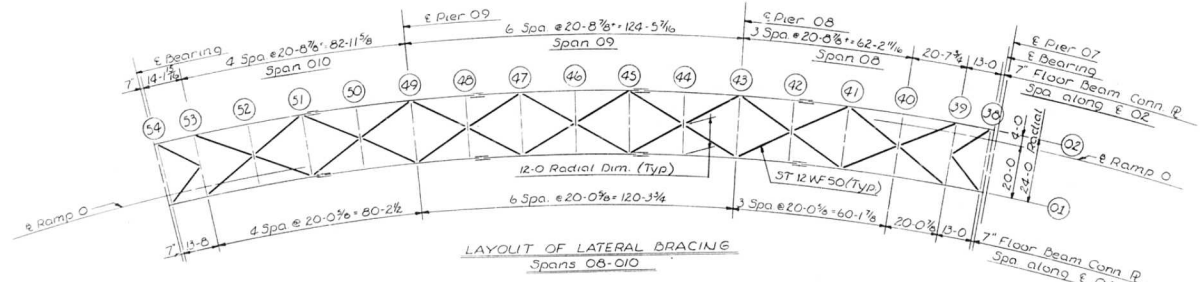
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. — 70	82-3HVF BE-1	ST. CLAIR	547	225
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
Spans 01-03



LAYOUT OF LATERAL BRACING
Spans 04-06



LAYOUT OF LATERAL BRACING
Spans 08-010

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING
SPANS 01 THRU 010
POPLAR STREET BRIDGE APPROACHES
RAMP "O"

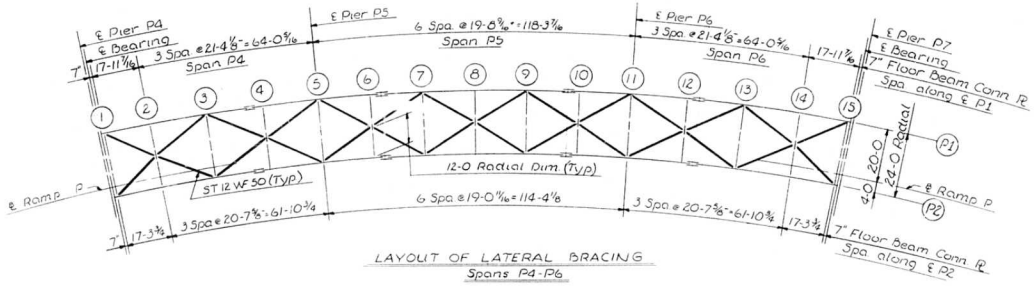
F. A. I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF BE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

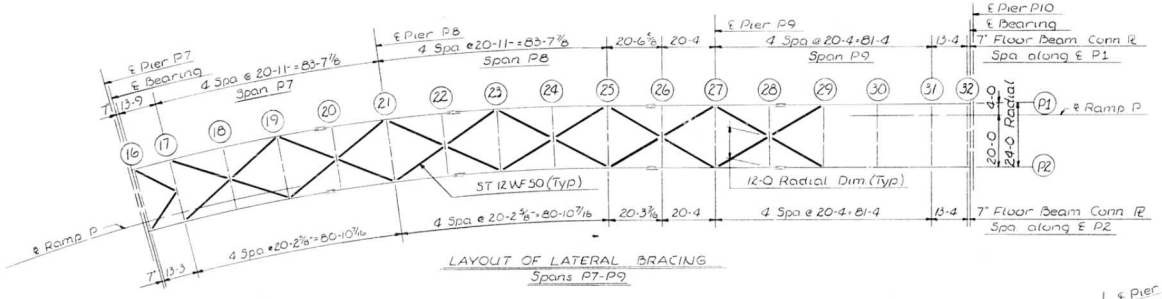
SHEET
365 OF 526

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY KA

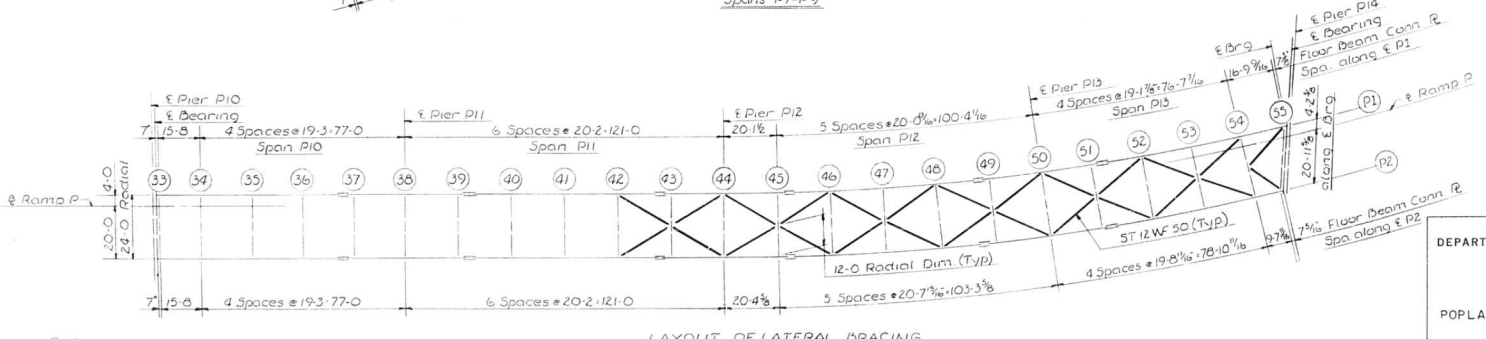
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. — 70	82-3HVF & E-1	ST. CLAIR	237	226
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
Spans P4-P6



LAYOUT OF LATERAL BRACING
Spans P7-P9



LAYOUT OF LATERAL BRACING
Spans P10-P13

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

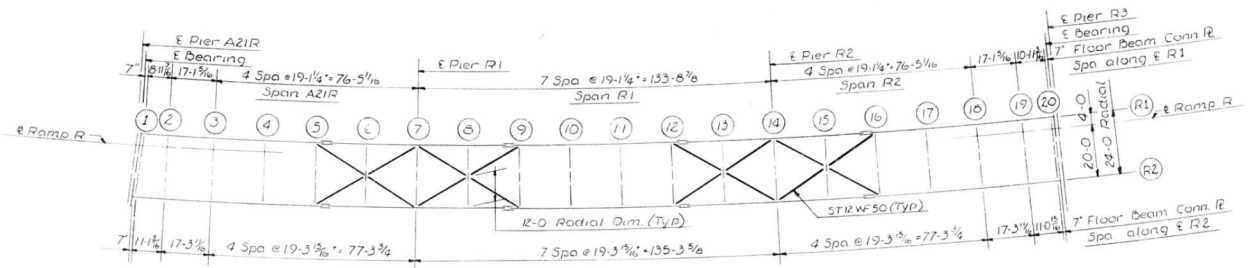
SPANS P4 THRU P13
POPLAR STREET BRIDGE APPROACHES
RAMP "P"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

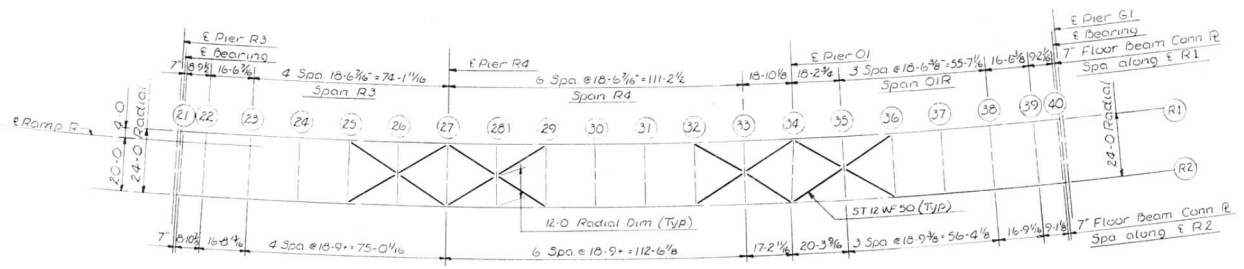
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 356 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. — 70	82-3HVF & E-1	ST. CLAIR	347	227
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
Spans A21R, R1, R2



LAYOUT OF LATERAL BRACING
Spans R3, R4, O1R

DESIGNED BY RMR
DRAWN BY
CHECKED BY RMR
APPROVED BY KA

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

SPANS A21-R THRU R4 AND O1-R

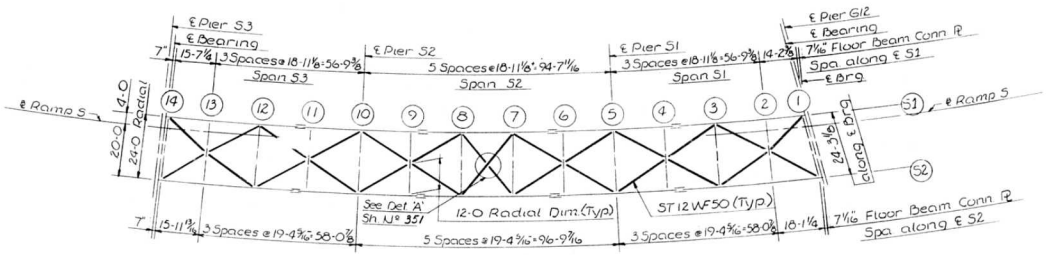
POPLAR STREET BRIDGE APPROACHES
RAMPS "O" AND "R"

F. A. I. RT. 70 ST. CLAIR CO SECTION 82-3HVF & E-1

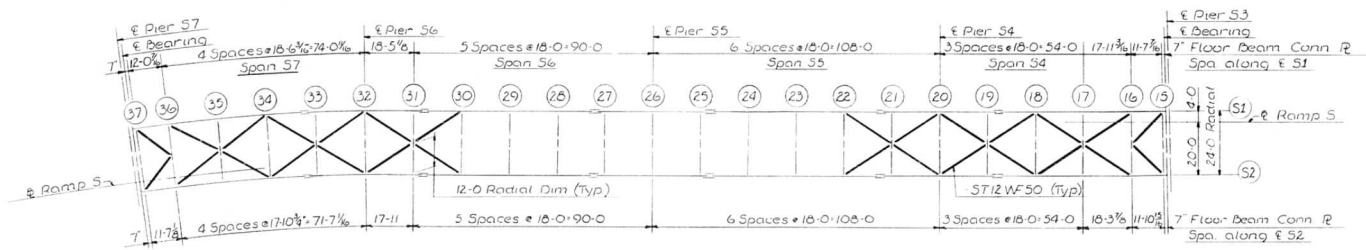
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
357 OF 526

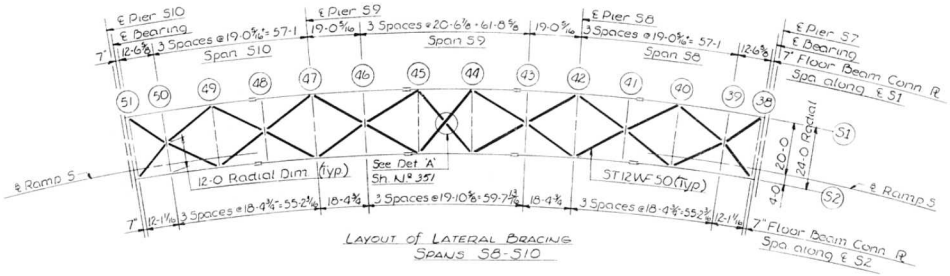
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I – 70	82-3HVF & E-1	ST. CLAIR	247	228
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



LAYOUT OF LATERAL BRACING
SPANS S1-S3



LAYOUT OF LATERAL BRACING
SPANS S4-S7



LAYOUT OF LATERAL BRACING
SPANS S8-S10

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

LATERAL BRACING

SPANS S1 THRU S10,
POPLAR STREET BRIDGE APPROACHES
RAMP "S"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

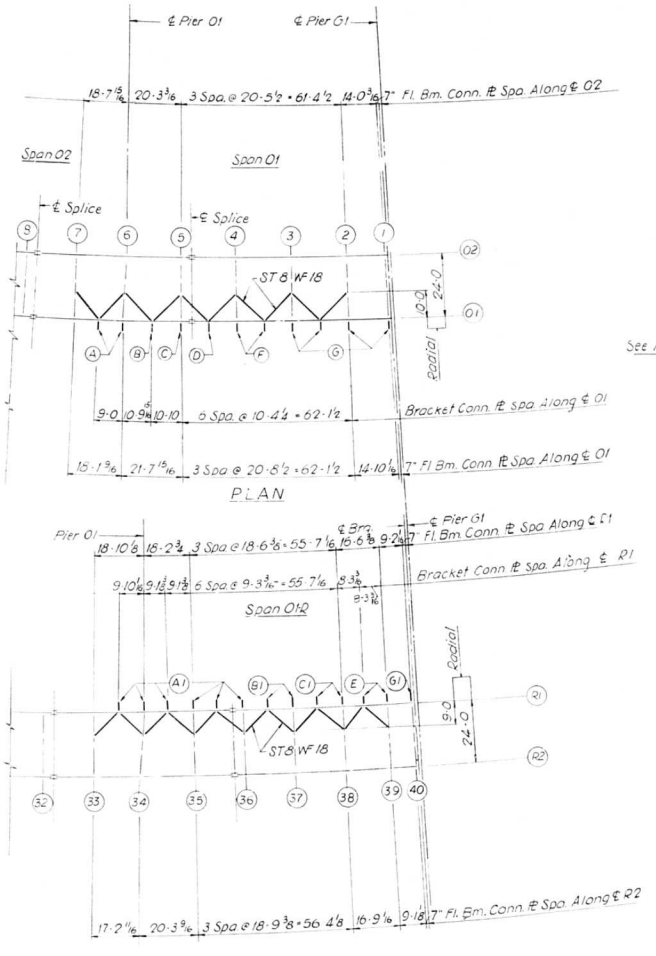
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

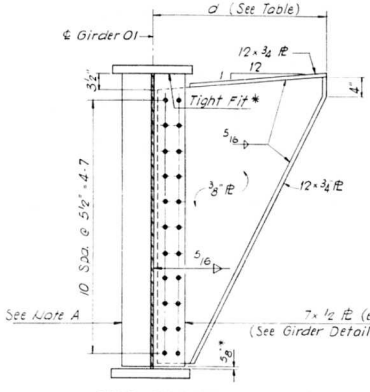
SHEET 358 OF 528

DESIGNED BY RMR
DRAWN BY LWA
CHECKED BY RMR
APPROVED BY KA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I – 70	82-3HVF & E-1	ST. CLAIR	264	229
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		







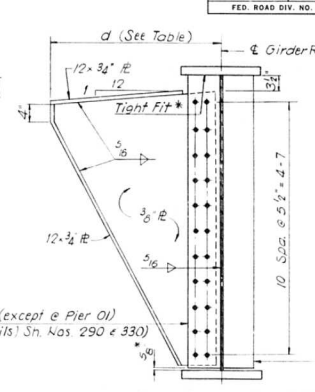
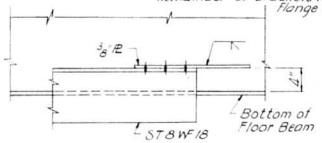


TABLE OF BRACKET DIMENSIONS

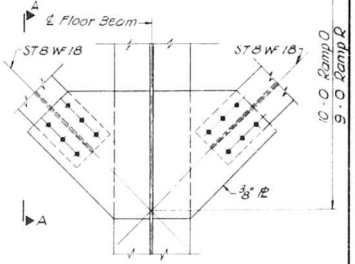
Bracket	d
A	3-8
B	3-6
C	3-2
D	2-9
E	2-7
F	2-6
G	2-2
A1	3-8
B1	3-6
C1	3-2
G1	2-2

Note A:
See Girder Details For Typ. Floor Beam Conn. ℄ or Intermediate Stiffeners (Sh. Nos. 290 and 330)

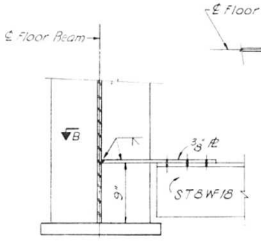
* Connection Plate to be fit and Undercut as Shown for Bracket D, F, G & A1 (At Floor Beam 36 only) B1, C1, E and G1. Remainder of Brackets to be fit at Bottom Flange and Undercut at Top Flange.



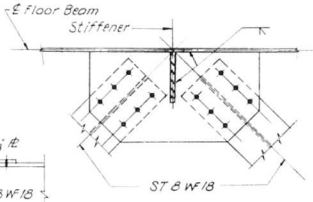
VIEW A-A



BRACING CONN. DETAIL AT FLOOR BEAM



ELEVATION



PLAN

BRACING CONN. DETAIL AT STIFF. BETWEEN FLOOR BEAMS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

SLAB BRACKET DETAILS

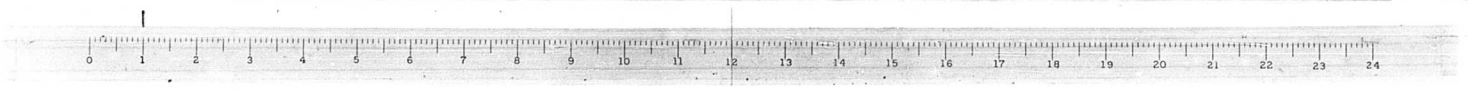
SPANS R3, R4 & 01 – R AND 01 THRU 03
POPLAR STREET BRIDGE APPROACHES
RAMPS "O" AND "R"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 359 OF 528

DESIGNED BY RMR
DRAWN BY VR
CHECKED BY RMR
APPROVED BY KA



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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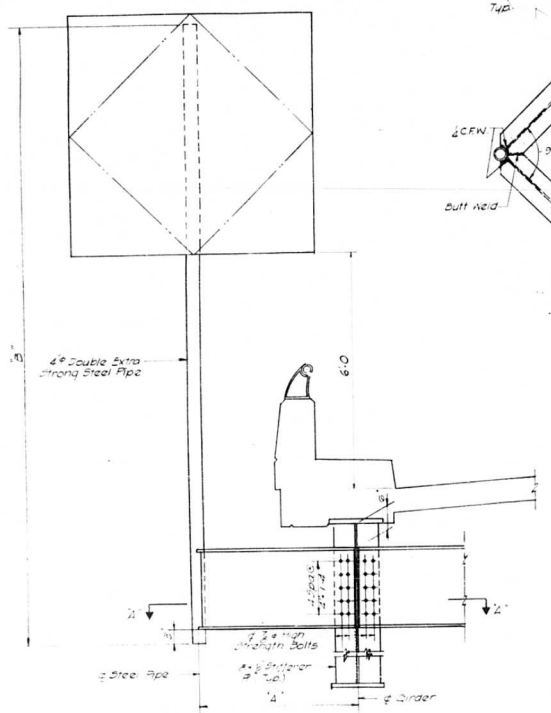
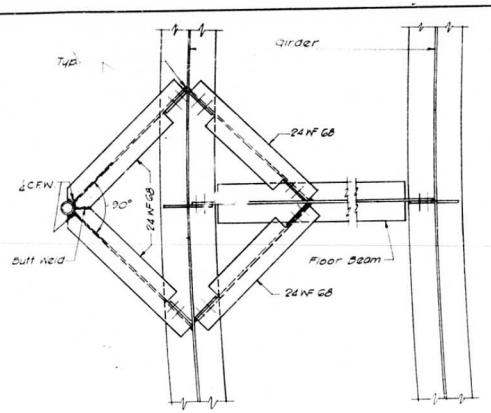
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



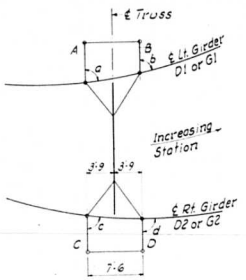
Elevation

Sign Bracket on Structure

NOTE: 8"x ½ Connection Pls to be fit to Compression flange and undercut ½" at tension flange. See Girder Details for locations of Details A and B.

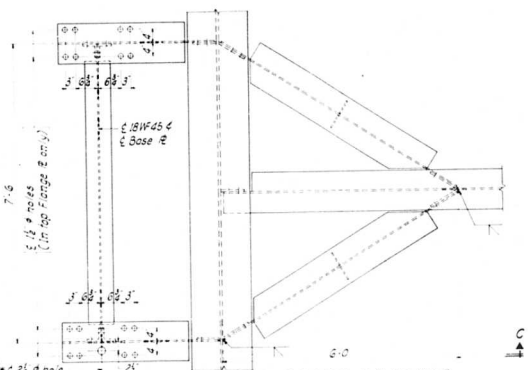


SECTION A-A



DIMENSION PLAN
TRUSS SIGN SUPPORT

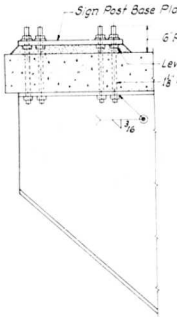
Truss No	Pier Station	A	B	C	D	Angle a	Angle b	Angle c	Angle d
2	Pier D10 58+19	3'-1 15/16"	3'-1 15/16"	3'-6 5/8"	2'-9 5/8"	90°07'11"	89°52'49"	84°29'04"	84°29'04"
3	Pier D25 72+59	3'-5 1/4"	2'-10 3/8"	3'-2 1/16"	3'-2 1/16"	85°53'41"	85°39'16"	89°54'13"	90°05'47"
9	Pier G13 87+35	2'-8 15/16"	3'-7"	3'-2"	3'-2"	96°27'14"	96°15'47"	90°00'00"	90°00'00"
10	Pier G3 77+68	3'-1 1/8"	3'-2 13/16"	3'-0 1/16"	3'-3 5/16"	91°12'29"	90°59'21"	91°29'00"	91°43'18"



PLAN - TRUSS SIGN SUPPORT BRACKET

Notes:
For location of Sign Bracket see Framing Plans. Weight of Sign Bracket and Cross Bracing is included with Quantity for Structural Steel.

1⅛ ø Bolts, nuts & washers for overhead Sign Trusses to be furnished by the Contractor for Section 82-3HVD-1.



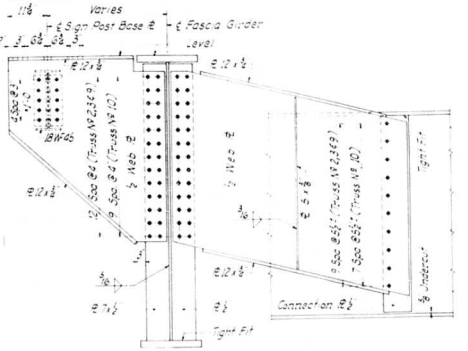
DETAIL A

Table For Sign Bracket Dimensions

Sign Bracket	"A"	"B"
#1	3-10	15-2
#2	3-0	14-7
#3	3-0	14-6
#4	3-10	15-0
#5	3-0	12-7
#6	3-0	14-7
#7	3-0	14-8
#8	3-0	14-6
#9	3-10	15-2
#10	3-0	14-8
#11	3-0	14-6
#12	3-10	15-0
#13	3-0	14-8
#14	3-10	15-0
#15	3-10	15-1
#16	3-0	12-8
#17	3-0	12-6
#18	3-0	14-8
#19	3-0	14-6
#20	3-0	14-7

* Locate 2½ ø hole on side where B & D dimensions are shown for Truss Nos. 9 & 10 and on side where A & C dimensions are shown for Truss Nos 2 & 3. (See Dimension Plan.)

Note
For Location of Sign Bracket see Framing Plan.



SECTION C-C

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

SIGN BRACKET DETAILS

POPLAR STREET BRIDGE APPROACHES

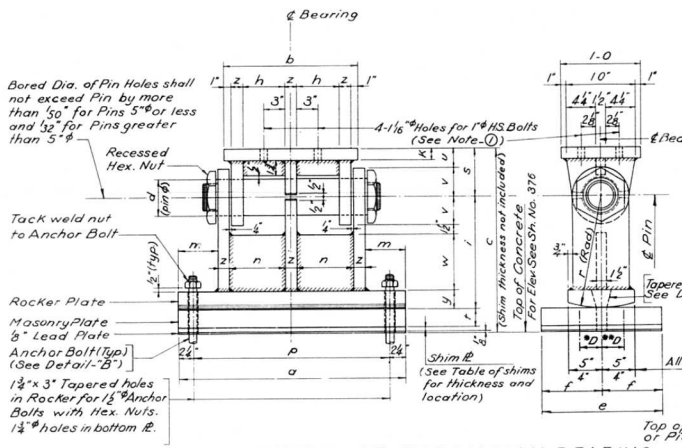
F.A.I. RT. 70 ST. CLAIR CO. SECTIONS 82-3HVF & E-1, 82-3HVD-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 360OF 526

DESIGNED BY RMR
DRAWN BY RMR
CHECKED BY RMR
APPROVED BY KA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST CLAIR	247	231
FED. ROAD DIV. NO. 4		ILLINOIS	PROJECT	



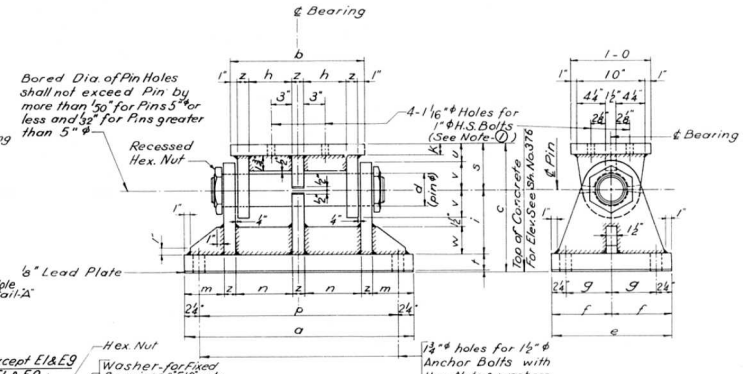


TABLE OF SHIMS

LOCATION		GIRDER	SHIM THICKNESS
PIER	SPAN		
A8	A8	A1 & A2	1/8"
A25	A24	A1 & A2	1/8"
D1	D1	D2	1/2"
D5	D5	D1 & D2	1/4"
D8	D8	D1 D2	5/16" 1/2"
D17	D17	D1 & D2	1"
D28	D27	D2	1/8"
G1	G1-R	R1	1"
G2	G2	G1 & G2	1/2"
G9	G8	G1 & G2	5/8"
G12	G12	G2	1/4"
M6	M7	M1 & M2	5/16"
M9	M9	M1 & M2	7/8"
N5	N4	N1 & N2	1/2"
P4	P4	P1 & P2	1"
P7	P6	P & P2	1/2"
P10	P9	P1 P2	11/16" 1/2"
R3	R3	R1 & R2	1/8"
S3	S4	S1 S2	1 1/8" 15/16"
S7	S8	S1 & S2	1/2"
S15	S16	S1 & S2	1/4"
S18	S18	S1 & S2	1"

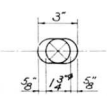
Length and Width of Shims to be the same as the corresponding Base Plate.

DETAIL OF EXPANSION BEARING

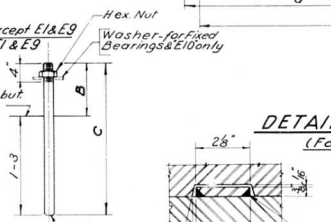
(For Dimensions See Table)

E1 Thru E9

ANCHOR BOLT DIMENSIONS						
Dimension	F1 thru F6	F7 thru F10	E1, E2, E8	E3 thru E6	E7	E10
B	5 1/2	6 1/2	7 1/2	9 1/2	11	6
C	1-8 1/2	1-9 1/2	1-10 1/2	2-0 1/2	2-2	1-9



DETAIL-"A"



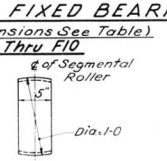
DETAIL-"B"

DETAIL OF FIXED BEARING

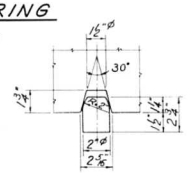
(For Dimensions See Table)

F1 Thru F10

DETAIL-"C"



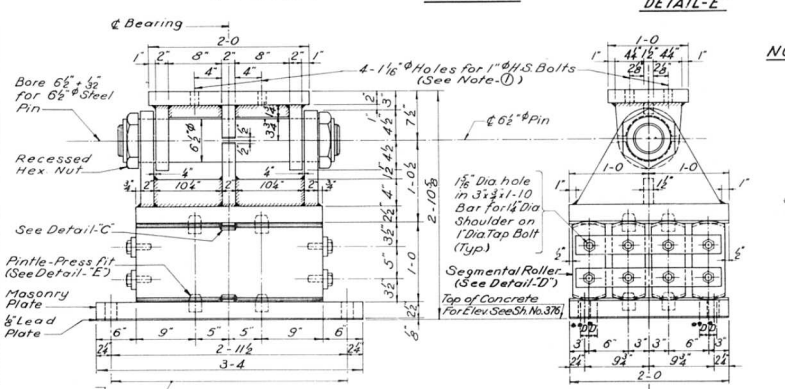
DETAIL-"D"



DETAIL-"E"

TYPE OF BEARING ASSEMBLY DIMENSIONS

TYPE OF BEARING	NO. REQ'D	Dimension																			
		a	b	c	d	e	f	g	h	i	K	m	n	p	r	s	t	U	V	W	y	z
F1	4	2-4	1-6	1-3 3/8	3 5/8"	9"	4 5/8"	2 4"	5 3/8"	7 5/8"	1 1/4"	4"	7 3/8"	1-11 5/8"		5 5/8"	2"	2 5/8"	3"	3 4"		1 3/8"
F2	20	2-7	1-8	1-5 3/8	5"	1-0	6"	3 3/8"	6 3/8"	9 4"	1 3/8"	4 5/8"	8 3/8"	2-2 1/8"		6 5/8"	2"	2 3/8"	3 3/8"	4"		1 3/8"
F3	10	2-8	1-8	1-6 3/8	5"	1-2	7"	4 3/8"	6 3/8"	9 4"	1 3/8"	5"	8 3/8"	2-3 3/8"		6 5/8"	2 4"	2 3/8"	3 3/8"	4"		1 3/8"
F4	30	2-10	1-8	1-6 3/8	5"	1-4	8"	5 3/8"	6 3/8"	9 4"	1 3/8"	6"	8 3/8"	2-5 5/8"		6 5/8"	2 5/8"	2 3/8"	3 3/8"	4"		1 3/8"
F5	2	2-10	2-0	1-6 3/8	5"	1-4	8"	5 3/8"	8 3/8"	9 4"	1 3/8"	4"	10 3/8"	2-5 5/8"		6 5/8"	2 5/8"	2 3/8"	3 3/8"	4"		1 3/8"
F6	16	2-10	1-8	1-6 3/8	5 5/8"	1-6	9"	6 3/8"	6 3/8"	9 5/8"	1 3/8"	6"	8 3/8"	2-5 5/8"		6 3/8"	2 5/8"	2 3/8"	4"	4"		1 3/8"
F7	6	3-0	1-8	1-7 3/8	6"	1-8	10"	7 3/8"	6 3/8"	9 3/8"	2"	7"	8 3/8"	2-7 5/8"		7 4"	2 3/8"	3"	4 4"	4"		1 3/8"
F8	2	3-0	2-0	1-7 3/8	6"	1-8	10"	7 3/8"	8 3/8"	9 3/8"	2"	5"	10 3/8"	2-7 5/8"		7 4"	2 3/8"	3"	4 4"	4"		1 3/8"
F9	6	3-2	1-8	1-8 3/8	6"	1-10	11"	8 3/8"	6 3/8"	9 3/8"	2"	8"	8 3/8"	2-9 5/8"		7 4"	3 4"	3"	4 4"	4"		1 3/8"
F10	2	3-4	2-0	1-8 3/8	6 5/8"	2-0	1-0	9 3/4"	8"	10"	2"	6 3/8"	10 4"	2-11 1/2"		7 4"	3 4"	3"	4 4"	4"		2"
E1	118	2-4	1-6	1-3 3/8	3 5/8"	9"	4 5/8"		5 3/8"	7 5/8"	1 1/4"	4"	7 3/8"	1-11 5/8"	7 1/2"	5 5/8"	2"	2 5/8"	3"	1 5"	1 1/4"	1 3/8"
E2	42	2-7	1-8	1-7 3/8	5"	1-0	6"		6 3/8"	10"	1 3/4"	4 5/8"	8 3/8"	2-2 3/8"	10"	6 5/8"	2 5/8"	2 3/8"	3 3/8"	2 3"	1 3/4"	1 3/8"
E3	12	2-8	1-8	1-8 3/8	5"	1-2	7"		6 3/8"	11"	1 3/4"	5"	8 3/8"	2-3 3/8"	11"	6 5/8"	3"	2 3/8"	3 3/8"	3 4"	2 5/8"	1 3/8"
E4	30	2-10	1-10	1-10 1/2	5"	1-4	8"		7 3/8"	1-0 1/2"	1 3/4"	5"	9 3/8"	2-5 5/8"	1-0 1/2"	6 5/8"	3 4"	2 3/8"	3 3/8"	4 3/4"	2 5/8"	1 3/8"
E5	2	2-10	2-0	1-10 1/2	5"	1-4	8"		8 3/8"	1-0 1/2"	1 3/4"	4"	10 3/8"	2-5 5/8"	1-0 1/2"	6 5/8"	3 4"	2 3/8"	3 3/8"	4 3/4"	2 5/8"	1 3/8"
E6	22	2-10	1-10	2-3 3/4"	5 5/8"	1-6	9"		7 3/8"	1-5	1 3/4"	5"	9 3/8"	2-5 5/8"	1-5	6 3/8"	3 5/8"	2 3/4"	4"	6 3/4"	2 3/4"	1 3/8"
E7	18	3-0	2-0	2-9 3/8	6"	1-8	10"		8 3/8"	1-10	2"	5"	10 3/8"	2-7 5/8"	1-10	7 4"	4"	3"	4 4"	1-1	3 4"	1 3/4"
E8	4	2-10	2-0	1-7 3/8	5"	1-0	6"		8 3/8"	10"	1 3/4"	4"	10 3/8"	2-5 5/8"	10"	6 5/8"	2 5/8"	2 3/8"	3 3/4"	2 3/4"	2"	1 3/8"
E9	8	2-10	2-0	1-3 3/8	3 5/8"	9"	4 5/8"		8 3/8"	7 5/8"	1 3/4"	4"	10 3/8"	2-5 5/8"	7 5/8"	5 5/8"	2"	2 5/8"	3"	1 5"	1 3/4"	1 3/8"
E10	8	(See Detail)																				



DETAIL OF EXPANSION BEARING

E10

NOTES:

① The 1"ϕ H.S. Bolts to be Bearing Type. Threads to be excluded from the contact surfaces.

② 1/2" Continuous Fillet Welds throughout for all Expansion & Fixed Bearings.

③ Anchor Bolts to be grouted into drilled holes after beams are in place.

*D = 1/100 ft. of expansion for every 15° below the normal temperature of 50°F.

**D = 1/8" 100 ft. of expansion for every 15° above the normal temperature of 50°F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

BEARING DETAILS

POPLAR STREET BRIDGE APPROACHES

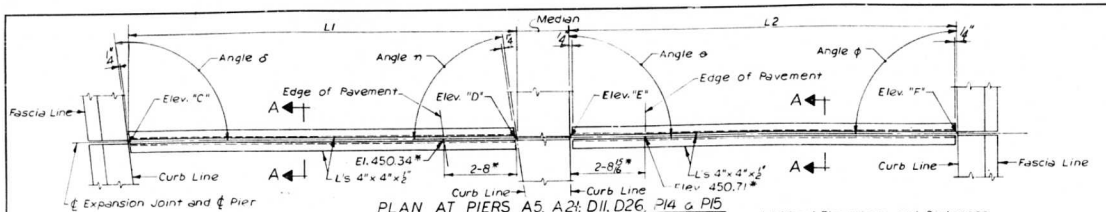
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1

DESIGNED BY	A.T. & R.M.R.
DRAWN BY	S.Q.B.
CHECKED BY	R.M.R.
APPROVED BY	K.A.

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 361 of 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	24-7	232
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

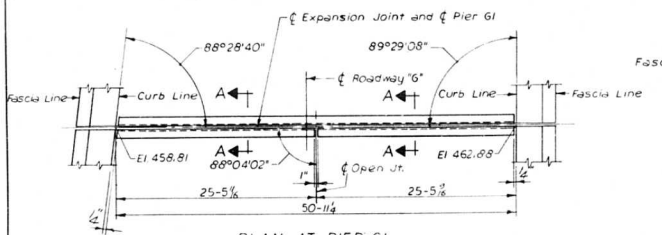


PLAN AT PIERS A5, A21, D11, D26, P14 & P15

Looking towards increasing Stationing

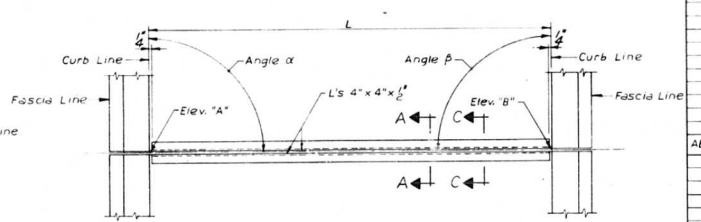
(See Table II)

* Additional Elevations and Distances for Expansion Device at Pier D11 only.



PLAN AT PIER G1

Looking towards increasing Stationing



PLAN AT PIERS A11, A12, D5, D12, D18, D21, G9, H1, M9, N1, O6, P7, S3 & ABUTMENTS G14, H5, O10 & O11

Looking towards increasing Stationing

(See Table I)

TABLE I

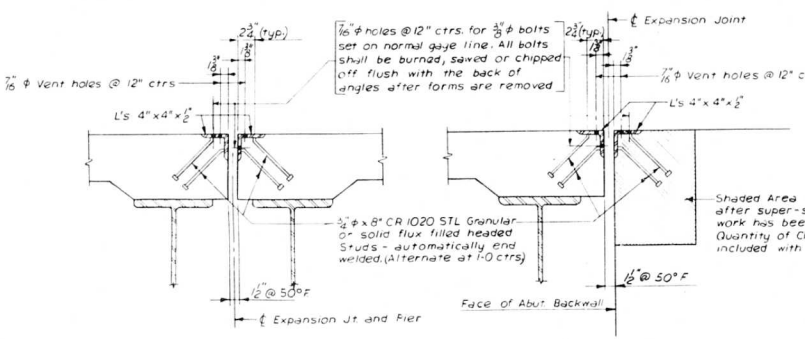
FOR ELEVATIONS, LENGTHS, ANGLES & WEIGHTS

PIER NO.	ANGLE α	ELEV. "A"	L	ELEV. "B"	ANGLE β	WEIGHT
A11	90°03'15"	448.05	30-0	450.45	90°00'00"	830 Lbs.
A12	90°19'37"	448.43	30-3 1/4	450.85	90°00'00"	830 Lbs.
D5	90°00'00"	446.70	30-0 1/16	446.23	92°36'23"	830 Lbs.
D12	90°00'00"	448.31	30-0	450.71	90°00'00"	830 Lbs.
D18	90°12'05"	448.70	30-0 3/8	450.88	90°00'00"	830 Lbs.
D21	91°47'46"	446.96	34-10 1/2	449.49	90°00'00"	960 Lbs.
G9	90°00'00"	455.58	30-0	457.98	90°00'00"	830 Lbs.
H1	89°12'02"	447.50	40-7 1/2	450.75	89°12'59"	1120 Lbs.
M9	90°00'00"	465.31	22-0	467.07	90°00'00"	610 Lbs.
N1	90°00'00"	451.32	22-0	450.44	90°00'00"	610 Lbs.
O6	90°00'00"	449.26	22-0	449.81	90°00'00"	610 Lbs.
P7	90°00'00"	471.78	22-0	470.02	90°00'00"	610 Lbs.
S3	90°00'00"	457.36	22-0	455.91	90°00'00"	610 Lbs.
G1		"See Details This Sheet"				1380 Lbs.
ABUTMENT						
G14	85°35'35"	443.24	48-8 1/2	443.39	90°00'00"	1340 Lbs.
H5	89°38'49"	441.18	32-3 7/16	443.76	89°36'07"	890 Lbs.
O10	90°00'00"	428.11	22-0	429.87	90°00'00"	610 Lbs.
O11	90°00'00"	424.74	22-0	426.12	90°00'00"	610 Lbs.

TABLE II

FOR ELEVATIONS LENGTHS ANGLES & WEIGHTS

PIER NO.	ANGLE δ	ELEV. "C"	L1	ELEV. "D"	ANGLE η	ANGLE θ	ELEV. "E"	L2	ELEV. "F"	ANGLE φ	WEIGHT
A5	95°43'07"	443.51	21-2 5/16	445.31	86°33'25"	90°00'00"	445.68	30-0	447.24	90°00'00"	1410 Lbs.
A21	94°50'36"	454.20	19-4 1/16	455.66	87°13'39"	90°00'00"	456.27	30-0	457.32	90°00'00"	1360 Lbs.
D11	90°00'00"	447.94	32-8	450.42	86°21'42"	78°59'21"	450.63	24-11 3/8	450.45	98°04'36"	1590 Lbs.
D26	97°05'16"	446.84	22-2	448.56	82°59'54"	90°00'00"	448.90	30-0	449.37	90°00'00"	1440 Lbs.
P14	107°48'41"	448.63	23-0 3/8	450.44	72°39'57"	111°54'53"	450.14	23-4 3/4	451.85	67°23'40"	1280 Lbs.
P15	113°54'37"	448.02	20-1 5/16	449.55	64°39'15"	114°43'17"	450.02	20-5 3/8	451.56	63°49'22"	1120 Lbs.



SECTION A-A AT PIERS

SECTION C-C AT ABUTMENTS

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Steel	Lbs	23,140

NOTE:

The Contractor for Section 82-3 HVF & E-1 will furnish all expansion devices shown on this sheet. See Special Provisions.

The Contractor for Section 82-3 HVD-1 will erect the expansion devices as shown on this sheet. See Special Provisions.

DESIGNED BY P.A.S.
DRAWN BY P.A.S.
CHECKED BY L.H.W.
APPROVED BY M.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

EXPANSION DEVICES
OPEN TYPE
POPLAR STREET BRIDGE APPROACHES

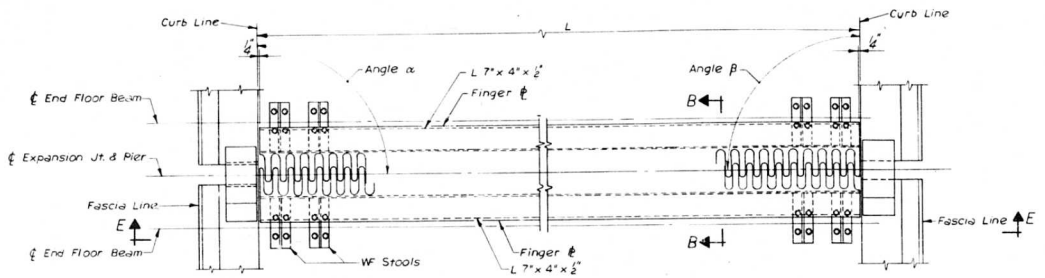
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF & E-1, 82-3HVD-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

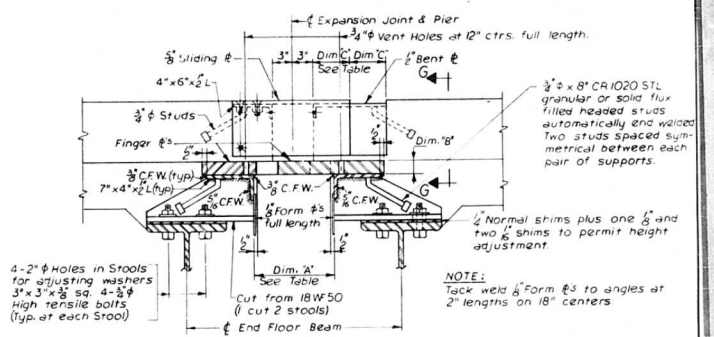
SHEET 382 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	233
	82-3HVD-1			
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

NOTE:
Stool Spacing to be adjusted to miss Stiffener and Connection Plates on Floor Beams



PLAN AT PIERS A8, A15, A18, D8, D15, D22, D28, D33, G5, H2, M12, N5, O3, O14, P4, P10, R3, S7 AND S18
LOOKING TOWARDS INCREASING STA.

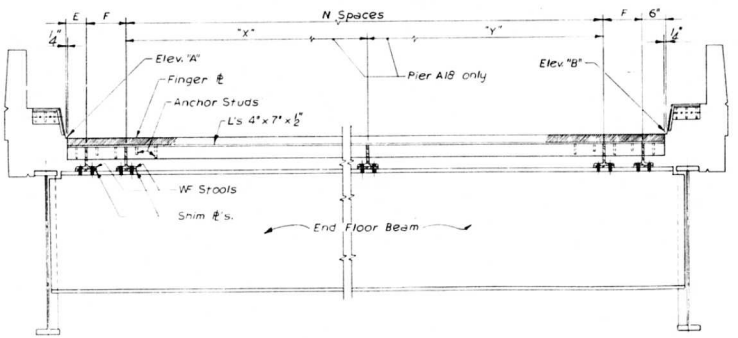


¾"ϕ x 8" CR1020 STL granular or solid flux filled headed studs automatically end welded. Two studs spaced symmetrical between each pair of supports.

¼" Normal shims plus one ⅛" and two 1/16" shims to permit height adjustment.

NOTE:
Tack weld ⅛" Form ℄s to angles at 2" lengths on 18" centers.

SECTION B-B

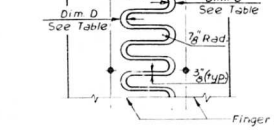


SECTION E-E

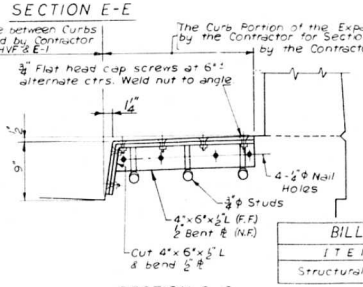
TABLE OF ELEVATIONS, LENGTHS, ANGLES AND WEIGHTS OF FINGER EXPANSION DEVICES

PIER NO.	ELEV. "A"	ANGLE α	L	ANGLE β	ELEV "B"	E	F	N SPACES	WEIGHT
A8	446.49	90°00'00"	30'-0	90°00'00"	448.89	6"	1'-6	13 Spaces @ 2'-0 = 26'-0	7920 lbs.
A15	449.64	91°24'03"	35'-0⅞	90°00'00"	452.44	7⅜"	1'-9	15 Spaces @ 2'-0 + 30-11⅛	9250 lbs.
A18	450.39	92°26'25"	45'-7	90°00'00"	454.03	8"	1'-6	See Note "A"	11'-90 lbs.
D8	447.87	90°00'00"	45'-1⅛	90°00'00"	449.86	7-0⅞"	1'-6	21 Spaces @ 1'-9½ + 33'-7½	11410 lbs.
D15	449.38	90°00'00"	30'-0	90°00'00"	451.78	6"	1'-6	13 Spaces @ 2'-0 = 26'-0	7970 lbs.
D22	446.38	92°14'23"	37'-7⅛	90°00'00"	449.10	7⅜"	1'-9	17 Spaces @ 11⅛ + 33'-5½	9990 lbs.
D28	451.70	90°00'00"	30'-0	90°00'00"	450.16	6"	1'-6	13 Spaces @ 2'-0 = 26'-0	8160 lbs.
D33	451.98	90°00'00"	30'-0	90°00'00"	453.58	6"	1'-6	13 Spaces @ 2'-0 = 26'-0	8070 lbs.
G5	457.41	89°50'08"	34'-7⅛	88°56'18"	460.18	7⅜"	1'-9	15 Spaces @ 2'-0 + 30'-0	10750 lbs.
H2	446.18	88°17'21"	38'-4⅛	89°18'10"	449.25	10⅜"	1'-6	17 Spaces @ 2'-0 + 34'-0	9030 lbs.
M12	449.39	90°00'00"	22'-0	90°00'00"	448.96	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6000 lbs.
N5	449.68	90°00'00"	46'-0	90°00'00"	449.92	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6980 lbs.
O3	460.18	90°00'00"	22'-0	90°00'00"	458.42	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6010 lbs.
O14	436.32	90°00'00"	55'-0	90°00'00"	436.77	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6000 lbs.
P4	471.49	90°00'00"	22'-0	90°00'00"	469.73	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	5960 lbs.
P10	461.04	90°00'00"	55'-0	90°00'00"	460.77	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6060 lbs.
R3	461.57	90°00'00"	22'-0	90°00'00"	463.28	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6960 lbs.
S7	472.36	90°00'00"	55'-0	90°00'00"	474.12	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6960 lbs.
S18	458.02	90°00'00"	22'-0	90°00'00"	458.75	6"	1'-6	9 Spaces @ 2'-0 + 18'-0	6000 lbs.

NOTE "A": For Dim "X" use 12 Spaces @ 1'-11" = 23'-0", for "Y" Dim. use 13 Spaces @ 1'-5" = 18'-5"



FINGER ℄ CUTTING DETAIL



SECTION G-G

NOTE:
Stool spacing to be adjusted to miss stiffener & connection plates on floor beams.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Steel	Lbs.	148,960

Temperature range = -30°F. to +130°F. with +50°F. = Normal

EXPANSION DEVICE TABLE

PIER NO.	Dimen. "A" at 50° F.	Dimen. "B" & Thickness	Dimen. "C" at 50° F.	Dimen. "D" at 50° F.
A8	11⅞"	1⅛"	3½"	3⅝"
A15	12¼"	1⅛"	4"	3½"
A18	9⅝"	1⅝"	3"	2⅝"
D8	11⅞"	1⅛"	3½"	3⅝"
D15	11⅝"	1⅛"	3½"	3½"
D22	12¼"	1⅛"	4"	3⅜"
D28	13"	1⅛"	4"	3⅝"
D33	12¼"	1⅛"	4"	3½"
G5	15⅝"	2¼"	5"	4⅝"
H2	9⅝"	1⅝"	3"	2⅝"
M12	12¼"	1⅛"	4"	3½"
N5	14⅛"	2¼"	4½"	4⅛"
O3	12¼"	1⅛"	4"	3½"
O14	12¼"	1⅛"	4"	3⅝"
P4	9¼"	1⅝"	3"	2⅝"
P10	14⅛"	2¼"	4½"	4⅛"
R3	13"	1⅛"	4"	3¾"
S7	11⅞"	1⅛"	3½"	3½"
S18	10"	1⅛"	3"	2⅝"

NOTES: The Portions of the Expansion Devices for Piers A1, D1, A25, M6, S10 & S16 that have been stored by the Contractor for Section 82-3 HVB shall be erected by the Erection Contractor indicated in Section "G-G" on this sheet. See Special Provisions.

The Portions of the Expansion Devices for Piers D33, N5, O14, P4 & S18 that can be erected immediately shall be erected by the Erection Contractor indicated in Section "G-G" this Sheet. The Future portions shall be stored by the Contractor for Section 82-3HVF & E-1 until needed by the Contractors for Sections 82-3HVB-2 and 82-3HVB-3.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

EXPANSION DEVICES
FINGER PLATE

POPLAR STREET BRIDGE APPR. ICHES

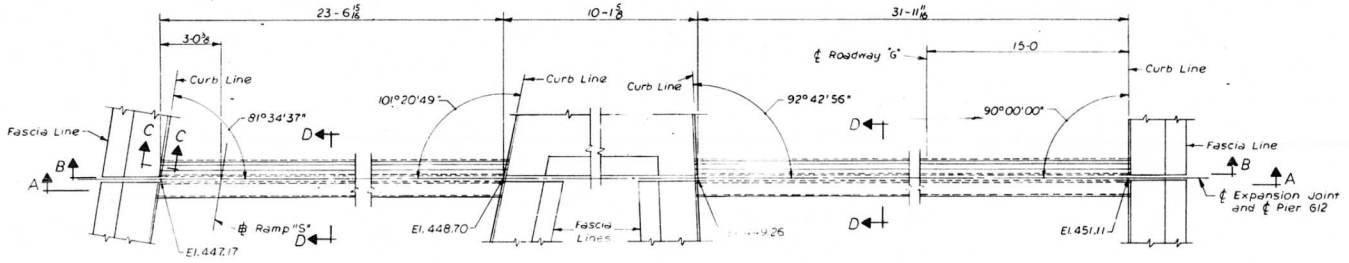
F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1 82-3HVD-1

H. W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

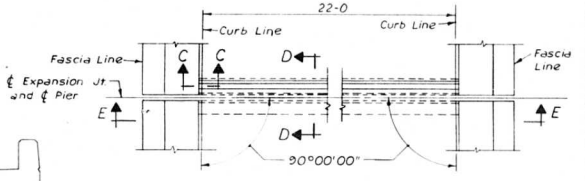
SHEET 363 OF 526

DESIGNED BY P.A.S.
DRAWN BY P.A.S.
CHECKED BY L.H.W.
APPROVED BY K.A.

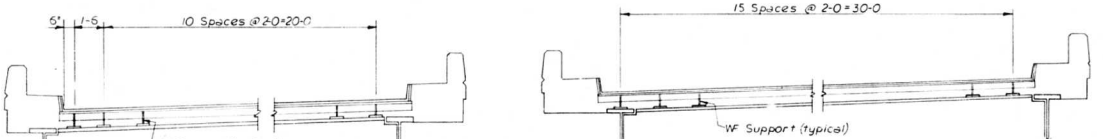
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF & E-1	ST. CLAIR	247	234
	82-3HVD-1			
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



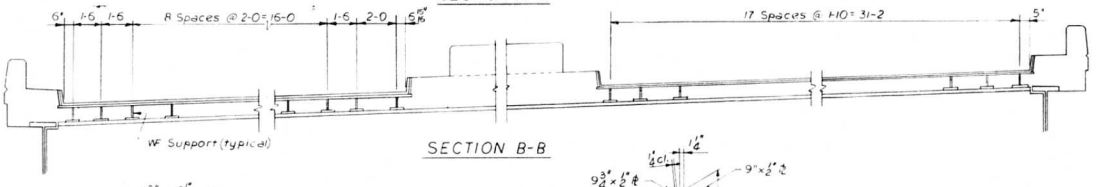
PLAN AT PIER G12
LOOKING TOWARDS INCREASING STATIONING OF ROADWAY G
Weight 9,220 Lbs.



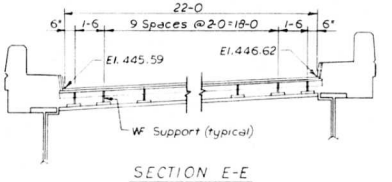
PLAN AT PIER 07
LOOKING TOWARDS INCREASING STATIONING
Weight 3,720 Lbs.



SECTION A-A

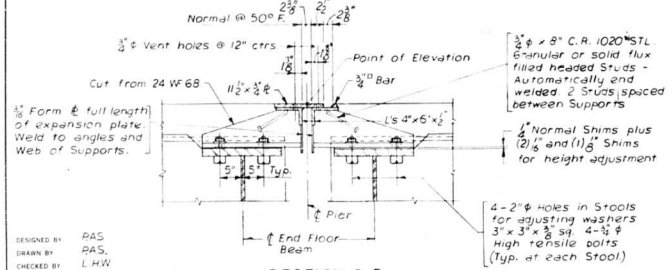


SECTION B-B

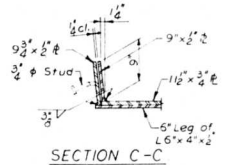


SECTION E-E

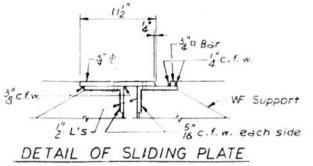
BILL OF MATERIAL		
ITEM	UNIT	TOTAL
Structural Steel	Lbs.	12,940



SECTION D-D



SECTION C-C



DETAIL OF SLIDING PLATE

DESIGNED BY PAS
DRAWN BY PAS.
CHECKED BY L.H.W.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

EXPANSION DEVICES
SLIDING PLATE
POPLAR STREET BRIDGE APPROACHES

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1 82-3HVD-1

H.W. LOCHNER, INC. ENGINEERS CHICAGO, ILLINOIS

SHEET 164 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST. CLAIR	247	235
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT		

SPAN A11

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. A1 & A2

	STEEL SECTION MAX. MOMENT
D. L.	1003
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	156
L.L.	390
Imp.	96
Total	642

SHEAR	Supp't.	¼ point	½ point
S.D.L.	3	2	0
L.L.	22	16	10
Imp.	5	3	2
Total	30	21	12

PROPERTIES

Steel Section	
Is	15306
Sts	691
Sbs	939
Composite Section	
Ic	52350
Stc	13540
Sbc	1217

SPAN A11

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. A3, A4 & A5

	STEEL SECTION MAX. MOMENT
D. L.	783
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	116
L.L.	834
Imp.	204
Total	1194

SHEAR	Supp't.	¼ point	½ point
S.D.L.	3	2	0
L.L.	46	33	20
Imp.	11	8	5
Total	60	43	25

PROPERTIES

Steel Section	
Is	15306
Sts	691
Sbs	939
Composite Section	
Ic	73313
Stc	19267
Sbc	1702

SPAN D11

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D1

	STEEL SECTION MAX. MOMENT
D. L.	950
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	113
L.L.	335
Imp.	84
Total	532

SHEAR	Supp't.	¼ point	½ point
S.D.L.	6	3	0
L.L.	23	14	9
Imp.	5	4	2
Total	31	21	11

PROPERTIES

Steel Section	
Is	13432
Sts	605
Sbs	893
Composite Section	
Ic	68579
Stc	11300
Sbc	1414

SPAN D11

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D2

	STEEL SECTION MAX. MOMENT
D. L.	1071
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	134
L.L.	424
Imp.	106
Total	664

SHEAR	Supp't.	¼ point	½ point
S.D.L.	7	3	0
L.L.	28	20	12
Imp.	7	5	3
Total	42	28	15

PROPERTIES

Steel Section	
Is	14977
Sts	686
Sbs	906
Composite Section	
Ic	80321
Stc	9378
Sbc	1561

SPAN D11

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D3, D4 & D5

	STEEL SECTION MAX. MOMENT
D. L.	886
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	141
L.L.	782
Imp.	196
Total	1119

SHEAR	Supp't.	¼ point	½ point
S.D.L.	8	4	0
L.L.	46	33	20
Imp.	11	8	5
Total	65	45	25

PROPERTIES

Steel Section	
Is	13432
Sts	605
Sbs	893
Composite Section	
Ic	69454
Stc	9227
Sbc	1277

SPAN D21

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D1 & D2

	STEEL SECTION MAX. MOMENT
D. L.	595
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	111
L.L.	325
Imp.	81
Total	517

SHEAR	Supp't.	¼ point	½ point
S.D.L.	6	3	0
L.L.	19	13	8
Imp.	5	3	2
Total	30	19	10

PROPERTIES

Steel Section	
Is	12001
Sts	556
Sbs	727
Composite Section	
Ic	57705
Stc	12251
Sbc	1313

SPAN D21

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D3, D4 & D5

	STEEL SECTION MAX. MOMENT
D. L.	520
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	124
L.L.	671
Imp.	167
Total	965

SHEAR	Supp't.	¼ point	½ point
S.D.L.	4	3	0
L.L.	38	28	17
Imp.	9	7	4
Total	51	38	21

PROPERTIES

Steel Section	
Is	12001
Sts	556
Sbs	727
Composite Section	
Ic	53,814
Stc	6106
Sbc	1129

SPAN D21

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D6

	STEEL SECTION MAX. MOMENT
D. L.	596
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	117
L.L.	635
Imp.	158
Total	910

SHEAR	Supp't.	¼ point	½ point
S.D.L.	6	3	0
L.L.	36	26	16
Imp.	9	6	4
Total	51	35	20

PROPERTIES

Steel Section	
Is	12001
Sts	556
Sbs	727
Composite Section	
Ic	57011
Stc	9843
Sbc	1153

SPAN D21

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. D7

	STEEL SECTION MAX. MOMENT
D. L.	558
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	108
L.L.	594
Imp.	145
Total	857

SHEAR	Supp't.	¼ point	½ point
S.D.L.	6	3	2
L.L.	33	24	14
Imp.	8	6	4
Total	47	33	13

PROPERTIES

Steel Section	
Is	12001
Sts	556
Sbs	727
Composite Section	
Ic	31190
Stc	3505
Sbc	1116

SPAN H1

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. H1

	STEEL SECTION MAX. MOMENT
D. L.	1093
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	136
L.L.	333
Imp.	79
Total	548

SHEAR	Supp't.	¼ point	½ point
S.D.L.	6	4	0
L.L.	17	12	8
Imp.	4	3	2
Total	27	18	10

PROPERTIES

Steel Section	
Is	16557
Sts	701
Sbs	1252
Composite Section	
Ic	24018
Stc	6765
Sbc	1728

SPAN H1

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. H2

	STEEL SECTION MAX. MOMENT
D. L.	1218
COMPOSITE SECTION MAX. MOMENT	
S.D.L.	154
L.L.	406
Imp.	95
Total	695

SHEAR	Supp't.	¼ point	½ point
S.D.L.	9	4	0
L.L.	20	14	9
Imp.	5	3	2
Total	34	21	11

PROPERTIES

Steel Section	
Is	17920
Sts	885
Sbs	1012
Composite Section	
Ic	32250
Stc	10276
Sbc	1586

Moments are in Ft. - Kips
Reactions and Shears are in Kips

D. L. = Dead load
S.D.L. = Superimposed dead load acting on composite section
L. L. = Live load
Imp. = Impact
Is = Moment of inertia steel sec.
Sts = Sec. Mod. top steel section
Sbs = Sec. Mod. bott. steel section
Ic = Moment of inertia comp. sec.
Stc = Sec. Mod. top comp. sec.
Sbc = Sec. Mod. bott. comp. sec.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

SIMPLE SPANS

POPLAR STREET BRIDGE APPROACHES

FAI RT 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
365 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST CLAIR	247	236
FED. ROAD DIV. NO. 8	ILLINOIS	PROJECT		

SPAN H1

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. H3 thru H7

	STEEL SECTION MAX. MOMENT
D.L.	902
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	170
L.L.	845
Imp.	199
Total	1214

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	8	4	0
L.L.	43	30	19
Imp.	10	7	4
Total	60	41	23

PROPERTIES

Steel Section	
Is	16557
Sts	721
Sas	1264
Composite Section	
Ic	54915
Stc	3765
Sac	1766

SPAN D11N

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. N1

	STEEL SECTION MAX. MOMENT
D.L.	490
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	134
L.L.	424
Imp.	106
Total	664

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	7	3	0
L.L.	28	20	12
Imp.	7	5	3
Total	42	28	15

PROPERTIES

Steel Section	
Is	9977
Sts	666
Sas	956
Composite Section	
Ic	29337
Stc	2378
Sac	1221

SPAN D11N

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. N2

	STEEL SECTION MAX. MOMENT
D.L.	490
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	113
L.L.	335
Imp.	84
Total	532

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	6	3	0
L.L.	23	14	9
Imp.	5	4	2
Total	31	21	11

PROPERTIES

Steel Section	
Is	13433
Sts	825
Sas	833
Composite Section	
Ic	38579
Stc	1300
Sac	1674

SPAN D11N

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. N3 & N4

	STEEL SECTION MAX. MOMENT
D.L.	886
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	141
L.L.	783
Imp.	196
Total	1119

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	8	4	0
L.L.	42	33	20
Imp.	11	8	5
Total	65	45	25

PROPERTIES

Steel Section	
Is	13433
Sts	825
Sas	893
Composite Section	
Ic	56456
Stc	4007
Sac	1277

SPAN 07

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. 01 & 02

	STEEL SECTION MAX. MOMENT
D.L.	804
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	80
L.L.	271
Imp.	73
Total	427

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	5	3	0
L.L.	19	14	8
Imp.	5	4	2
Total	29	21	10

PROPERTIES

Steel Section	
Is	10008
Sts	785
Sas	870
Composite Section	
Ic	39521
Stc	1974
Sac	1148

SPAN 07

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. 03 & 04

	STEEL SECTION MAX. MOMENT
D.L.	575
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	102
L.L.	639
Imp.	169
Total	910

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	6	3	2
L.L.	45	33	19
Imp.	12	9	5
Total	63	44	24

PROPERTIES

Steel Section	
Is	10008
Sts	785
Sas	870
Composite Section	
Ic	39521
Stc	1974
Sac	1148

SPAN P14

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P1

	STEEL SECTION MAX. MOMENT
D.L.	1073
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	137
L.L.	312
Imp.	74
Total	523

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	8	5	0
L.L.	12	12	7
Imp.	4	3	2
Total	28	19	9

PROPERTIES

Steel Section	
Is	16220
Sts	786
Sas	1031
Composite Section	
Ic	53431
Stc	3357
Sac	1614

SPAN P14

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P2

	STEEL SECTION MAX. MOMENT
D.L.	1133
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	135
L.L.	446
Imp.	105
Total	686

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	9	6	0
L.L.	22	16	10
Imp.	5	4	3
Total	36	24	13

PROPERTIES

Steel Section	
Is	16027
Sts	733
Sas	1014
Composite Section	
Ic	53300
Stc	3330
Sac	1653

SPAN P14

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P3, P4 & P7

	STEEL SECTION MAX. MOMENT
D.L.	902
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	170
L.L.	845
Imp.	199
Total	1214

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	8	4	0
L.L.	43	31	19
Imp.	10	7	4
Total	60	42	23

PROPERTIES

Steel Section	
Is	16220
Sts	786
Sas	1030
Composite Section	
Ic	51308
Stc	4229
Sac	1654

SPAN P14

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P5 & P6

	STEEL SECTION MAX. MOMENT
D.L.	1111
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	164
L.L.	827
Imp.	197
Total	1188

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	8	4	0
L.L.	42	30	19
Imp.	10	7	5
Total	60	41	24

PROPERTIES

Steel Section	
Is	13433
Sts	793
Sas	1212
Composite Section	
Ic	67077
Stc	4728
Sac	1803

SPAN P14

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P8

	STEEL SECTION MAX. MOMENT
D.L.	811
	COMPOSITE SECTION MAX. MOMENT
S.D.L.	152
L.L.	757
Imp.	179
Total	1088

	SHEAR		
	Supp't.	¼ point	½ point
S.D.L.	7	3	2
L.L.	38	27	17
Imp.	9	6	4
Total	54	36	21

PROPERTIES

Steel Section	
Is	12047
Sts	733
Sas	1014
Composite Section	
Ic	59848
Stc	4127
Sac	1781

Moments are in Ft.-Kips
Reactions and Shears are in Kips

D.L. = Dead load
S.D.L. = Superimposed dead load acting on composite section
L.L. = Live load
Imp. = Impact
Is = Moment of inertia steel sec.
Sts = Sec. Mod. top steel section
Sas = Sec. Mod. bott. steel section
Ic = Moment of inertia comp. sec.
Stc = Sec. Mod. top comp. sec.
Sac = Sec. Mod. bott. comp. sec.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

SIMPLE SPANS

POPLAR STREET BRIDGE APPROACHES

FAI RT 70 ST CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 566 OF 626

SEC'D BY: HJ
CK'D BY: GRAUL
DES'D BY: L.W.
DET'D BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-I	ST CLAIR	547	237
FED. ROAD DIV. NO. 5	ILLINOIS	PROJECT		

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P1

	STEEL SECTION		
	MAX. MOMENT		
D.L.	416		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	76		
L.L.	215		
Imp.	60		
Total	351		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	6	5	3
L.L.	18	13	8
Imp.	5	4	2
Total	29	20	10

PROPERTIES

Steel Section	
Is	7366
Sts	469
Sbs	582
Composite Section	
Ic	32766
Stc	2170.6
Sbc	1015

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P2

	STEEL SECTION		
	MAX. MOMENT		
D.L.	894		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	152		
L.L.	355		
Imp.	88		
Total	595		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	8	6	5
L.L.	20	14	9
Imp.	5	4	2
Total	33	22	11

PROPERTIES

Steel Section	
Is	12001
Sts	598
Sbs	747
Composite Section	
Ic	43735
Stc	1727.1
Sbc	1513

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P3

	STEEL SECTION		
	MAX. MOMENT		
D.L.	336		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	79		
L.L.	526		
Imp.	141		
Total	749		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	5	3	3
L.L.	31	29	17
Imp.	11	8	5
Total	57	40	22

PROPERTIES

Steel Section	
Is	4366
Sts	448
Sbs	582
Composite Section	
Ic	28332
Stc	1992.3
Sbc	1326

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P4

	STEEL SECTION		
	MAX. MOMENT		
D.L.	420		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	90		
L.L.	574		
Imp.	154		
Total	818		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	6	3	3
L.L.	32	30	18
Imp.	11	8	5
Total	59	41	23

PROPERTIES

Steel Section	
Is	4540
Sts	472
Sbs	600
Composite Section	
Ic	29990
Stc	1985
Sbc	1353

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P5

	STEEL SECTION		
	MAX. MOMENT		
D.L.	554		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	102		
L.L.	625		
Imp.	183		
Total	888		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	6	5	3
L.L.	33	32	18
Imp.	11	8	5
Total	59	41	23

PROPERTIES

Steel Section	
Is	12574
Sts	691
Sbs	721
Composite Section	
Ic	31346
Stc	2573
Sbc	1056

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P6

	STEEL SECTION		
	MAX. MOMENT		
D.L.	535		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	106		
L.L.	625		
Imp.	161		
Total	892		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	6	5	3
L.L.	33	29	18
Imp.	10	8	5
Total	58	40	23

PROPERTIES

Steel Section	
Is	12625
Sts	693
Sbs	670
Composite Section	
Ic	29329
Stc	2101
Sbc	982

SPAN P15

SIMPLE SPAN COMPOSITE BEAM

TABLE OF MOMENTS AND SHEARS STR. P7

	STEEL SECTION		
	MAX. MOMENT		
D.L.	542		
	COMPOSITE SECTION		
	MAX. MOMENT		
S.D.L.	112		
L.L.	633		
Imp.	160		
Total	905		
	SHEAR		
	Supp't.	1/4 point	1/2 point
S.D.L.	7	5	3
L.L.	38	28	17
Imp.	10	7	4
Total	54	38	21

PROPERTIES

Steel Section	
Is	12521
Sts	689
Sbs	704
Composite Section	
Ic	30789
Stc	1987
Sbc	1032

TABLE of MOMENTS & REACTIONS

End Floor Beams - Simple Spans

	Span A11		Span D11		Span D11N		Span O7	
Loads	Floor Bms. 51 & 52		Floor Bms. 52 & 53		Floor Bms. N1 & N2		Floor Bms. 36 & 37	
	Moment	Reaction	Moment	Reaction	Moment	Reaction	Moment	Reaction
Dead Load	603	76	729	89	385	49	309	39
Live Load	698	64	705	63	415	55	400	54
Impact	209	19	212	19	124	17	120	16
Total	1710	159	1846	151	924	121	829	109
Section Modulus	1067	—	981	—	579	—	503	—
	Span D21		Span D21		Span P14		Span P14	
Loads	Floor Bm. 105		Floor Bm. 106		Floor Bm. 56		Floor Bm. 57	
	Moment	Reaction	Moment	Reaction	Moment	Reaction	Moment	Reaction
Dead Load	1097	106	1226	104	2390	180	2347	177
Live Load	880	85	977	84	1230	73	1010	73
Impact	263	26	293	25	340	21	290	21
Total	2240	217	2496	213	3960	274	3647	271
Section Modulus	1366	—	1510	—	2780	—	2235	—
	Span P15		Span P15		Span H1		Span H1	
Loads	Floor Bm. 58		Floor Bm. 59		Floor Bm. 1		Floor Bm. 2	
	Moment	Reaction	Moment	Reaction	Moment	Reaction	Moment	Reaction
Dead Load	1535	107	1163	99	1645	130	1471	130
Live Load	950	68	1059	88	1082	86	1009	89
Impact	272	20	317	26	325	26	303	27
Total	2757	195	2539	213	3050	242	2783	246
Section Modulus	1700	—	1630	—	1930	—	1700	—

Moments are in Ft.-Kips
Reactions and Shears are in Kips
D.L. = Dead load
S.D.L. = Superimposed dead load acting on composite section
L.L. = Live load
Imp. = Impact
Is = Moment of inertia steel sec.
Sts = Sec. Mod. top steel section
Sbs = Sec. Mod. bott. steel section
Ic = Moment of inertia comp. sec.
Stc = Sec. Mod. top comp. sec.
Sbc = Sec. Mod bott. comp. sec.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

SIMPLE SPANS

POPLAR STREET BRIDGE APPROACHES

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
367 of 526

DESIGNED BY: H.Z.
DRAWN BY: GRATZ
CHECKED BY: L.W.
APPROVED BY: K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST. CLAIR	247	238
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions
Span A1 thru A4

Location		Moment: .4 Span A1	.5 Span A2	.5 Span A3	.6 Span A4	Pier A2	Pier A3	Pier A4	Reaction: Pier A1	Pier A2	Pier A3	Pier A4	Pier A5
Dead Load	Primary	1926	1847	2053	2421	4506	4890	5273	133	485	516	564	164
	Secondary	—	—	—	41	—	—	54	—	—	—	2	3
Live Load	Primary	1565	1676	1735	1600	1845	2070	1910	102	172	181	176	103
	Secondary	—	—	—	27	—	—	20	—	—	—	1	2
Impact		377	360	376	387	422	446	430	25	39	39	40	25
Centrifugal Force		—	—	—	72	—	—	51	—	—	—	5	5
Total		3868	3883	4164	4548	6773	7406	7738	260	696	736	788	302
Section Modulus		2502	2502	2694	3263	4522	4906	5651	—	—	—	—	—
Torque Loading	Dead Load	—	—	—	13.9	—	—	14.9					
	Live Load	—	—	—	9.1	—	—	5.3					
	Impact	—	—	—	2.2	—	—	1.3					
	Total	—	—	—	25.2	—	—	21.5					
	Section Modulus	—	—	—	101.3	—	—	182.3					

Table of Moments and Reactions
Spans A5 thru A7

Location		Moment: .4 Span A5 & Span A7	.5 Span A6	Piers A6 & A7	Reaction: Piers A5 & A6	Piers A6 & A7
Dead Load	Primary	1072	1036	2642	84	308
	Secondary	11	10	21	1	1
Live Load	Primary	968	984	1080	70	108
	Secondary	10	10	9	1	—
Impact		240	222	257	18	26
Centrifugal Force		35	36	39	3	4
Total		2336	2298	4048	177	447
Section Modulus		1612	1612	2579	—	—
Torque Loading	Dead Load	3.4	3.3	6.9		
	Live Load	3.0	3.1	2.8		
	Impact	0.8	0.7	0.7		
	Total	7.2	7.1	10.4		
	Section Modulus	54.0	54.0	94.5		

Table of Moments and Reactions
Spans A8 thru A10

Location		Moment: .4 Span A8 & Span A10	.5 Span A9	Piers A9 & A10	Reaction: Piers A8 & A11	Piers A9 & A10
Dead Load	Primary	1651	1814	4211	105	387
	Secondary	17	16	34	1	1
Live Load	Primary	1300	1310	1650	73	129
	Secondary	13	13	13	1	—
Impact		295	265	353	17	28
Centrifugal Force		47	47	59	3	5
Total		3323	3265	6320	200	550
Section Modulus		2256	2256	4293	—	—
Torque Loading	Dead Load	5.7	5.8	12.2		
	Live Load	4.5	4.7	4.8		
	Impact	1.0	1.0	1.0		
	Total	11.2	11.5	18.0		
	Section Modulus	81.0	81.0	162.0		

Table of Moments and Reactions
Spans A12 thru A14

Location		Moment: .4 Span A12	.5 Span A13	.6 Span A14	Pier A13	Pier A14	Reaction: Pier A12	Pier A13	Pier A14	Pier A15
Dead Load	Primary	1914	1883	2042	4331	4519	111	408	422	118
	Secondary	19	19	20	35	36	1	1	1	1
Live Load	Primary	1360	1422	1545	1540	1655	74	126	135	83
	Secondary	12	14	15	12	13	1	—	—	1
Impact		305	284	345	328	350	17	27	29	19
Centrifugal force		54	51	50	60	56	3	5	5	3
Total		3666	3673	4017	6306	6629	207	567	592	226
Section Modulus		2579	2579	2743	4293	4458	—	—	—	—
Torque Loading	Dead Load	7.9	7.4	7.6	14.3	14.3				
	Live Load	5.6	5.6	5.8	5.2	5.2				
	Impact	1.2	1.1	1.3	1.1	1.1				
	Total	14.7	14.1	14.7	20.6	20.6				
	Section Modulus	94.5	94.5	101.2	162.0	168.8				

Table of Moments and Reactions
Spans A15 thru A17

Location		Moment: .4 Span A15	.5 Span A16	.6 Span A17	Pier A16	Pier A17	Reaction: Pier A15	Pier A16	Pier A17	Pier A18
Dead Load	Primary	2059	2261	2352	4957	5325	123	462	487	138
	Secondary	21	23	24	40	43	1	1	1	1
Live Load	Primary	1675	1710	1730	1980	2035	91	162	165	93
	Secondary	17	17	18	16	16	1	—	—	1
Impact		378	338	391	420	427	20	34	35	21
Centrifugal force		56	53	50	65	60	3	5	5	3
Total		4206	4402	4565	7478	7906	239	664	693	257
Section Modulus		2878	3070	3070	5090	5283	—	—	—	—
Torque Loading	Dead Load	7.5	8.3	8.6	16.4	17.6				
	Live Load	6.1	6.2	6.4	6.5	6.7				
	Impact	1.4	1.2	1.4	1.4	1.4				
	Total	15.0	15.7	16.4	24.3	25.7				
	Section Modulus	87.8	94.5	94.5	162.0	168.8				

Moments in Ft.-Kips
Reactions in Kips
Section Modulus in In.^{3}

DESIGNED BY E. L.
DRAWN BY T. M.
CHECKED BY E. L.
APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

ROADWAY "A"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 5F5 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF8E-1	ST. CLAIR	247	239
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions
Spans A18 thru A20

Location		Moment: .4 Span A18	.5 Span A19	.6 Span A20	Pier A19	Pier A20	Reaction: Pier A18	Pier A19	Pier A20	Pier A21
Dead Load	Primary	2077	2312	2653	4978	5605	135	507	563	166
	Secondary	21	23	27	40	45	1	1	1	1
Live Load	Primary	1640	1800	1885	1915	2050	98	171	183	111
	Secondary	16	18	19	15	16	1	1	1	1
Impact		382	371	437	424	459	23	37	40	26
Centrifugal force		41	42	37	49	44	3	4	4	2
Total		4183	4566	5058	7431	8219	261	721	792	307
Section Modulus		2878	3070	3447	5090	5843	—	—	—	—
Torque Loading	Dead Load	6.1	6.3	6.8	11.6	12.2				
	Live Load	5.0	5.1	5.0	4.7	4.7				
	Impact	1.2	1.1	1.2	1.0	1.0				
	Total	12.3	12.5	13.0	17.3	17.9				
	Section Modulus	878	945	1080	1620	1890				

Table of Moments and Reactions
Spans A21 thru A24

Location		Moment: .4 Span A21	.5 Span A22	.5 Span A23	.6 Span A24	Pier A22	Pier A23	Pier A24	Reaction: Pier A21	Pier A22	Pier A23	Pier A24	Pier A25
Dead Load	Primary	1405	1304	1269	1505	3286	3333	3355	92	336	336	341	96
	Secondary	—	—	—	59	—	—	48	—	—	—	1	1
Live Load	Primary	1162	1186	1186	1187	1304	1501	1400	72	120	125	121	72
	Secondary	—	—	—	47	—	—	18	—	—	—	1	1
Impact		276	252	252	290	292	320	316	17	27	27	27	17
Centrifugal Force		—	—	—	119	—	—	71	—	—	—	4	7
Total		2843	2742	2707	3207	4882	5154	5208	181	483	488	495	194
Section Modulus		1892	1742	1742	2339	3311	3311	3607	—	—	—	—	—
Torque Loading	Dead Load	—	—	—	12.0	—	—	1.6					
	Live Load	—	—	—	9.4	—	—	1.0					
	Impact	—	—	—	2.2	—	—	0.2					
	Total	—	—	—	23.6	—	—	2.8					
	Section Modulus	—	—	—	94.5	—	—	148.5					

Table of Moments and Reactions
Spans D8 thru D10

Location		Moment: .4 Span D8	.5 Span D9	.6 Span D10	Pier D9	Pier D10	Reaction: Pier D8	Pier D9	Pier D10	Pier D11
Dead Load	Primary	1580	1950	2010	4120	4620	116	457	515	147
	Secondary	16	20	20	33	37	—	1	2	2
Live Load	Primary	1375	1595	1675	1640	1770	93	159	175	111
	Secondary	14	16	17	13	14	—	—	1	1
Impact		335	345	415	390	420	22	36	40	27
Centrifugal force		41	43	38	47	44	3	5	4	2
Total		3361	3969	4175	6243	6905	234	658	737	290
Section Modulus		2135	2695	2878	4338	4714	—	—	—	—
Torque Loading	Dead Load	—	7.3	7.4	12.4	13.9				
	Live Load	—	6.0	6.3	5.3	5.6				
	Impact	—	1.2	1.6	1.2	1.3				
	Total	—	14.5	15.3	18.9	20.8				
	Section Modulus	—	810	878	1350	1485				

Table of Moments and Reactions
Spans D5 thru D7

Location		Moment: 4 Span D5	.5 Span D6	.6 Span D7	Pier D6	Pier D7	Reaction: Pier D5	Pier D6	Pier D7	Pier D8
Dead Load	Primary	1253	1502	1523	3236	3545	92	358	385	109
	Secondary	—	—	—	—	—	—	—	—	—
Live Load	Primary	1180	1375	1340	1395	1487	79	133	143	89
	Secondary	—	—	—	—	—	—	—	—	—
Impact		285	295	329	323	344	19	30	33	22
Centrifugal force		—	—	—	—	—	—	—	—	—
Total		2718	3172	3192	4954	5376	190	521	561	220
Section Modulus		1759	1943	1943	3447	3823	—	—	—	—

Table of Moments and Reactions
Spans D12 thru D14

Location		Moment: .4 Span D12 & Span D14	.5 Span D13	Piers D13 & D14	Reaction: Piers D12 & D13	Piers D13 & D14
Dead Load	Primary	1519	1501	3673	98	361
	Secondary	18	18	35	1	1
Live Load	Primary	1212	1249	1435	72	122
	Secondary	15	15	15	1	—
Impact		282	260	320	17	27
Centrifugal Force		48	47	54	3	5
Total		3094	3090	5532	192	516
Section Modulus		2090	2090	3805	—	—
Torque Loading	Dead Load	5.2	5.2	10.3		
	Live Load	4.1	4.1	4.7		
	Impact	1.0	1.0	1.1		
	Total	10.3	10.3	16.1		
	Section Modulus	74.3	74.3	878		

Table of Moments and Reactions
Spans D1 thru D4

Location	Moment: 4 Span D1 & Span D4 & Span D2	5 Span D2 & Span D3 & Piers D2 & D4	Piers D3	Reaction: Piers D1 & D5	Piers D2 & D4	Pier D3
Dead Load	1577	1481	3654	3787	100	361	363
Live Load	1222	1263	1477	1611	73	124	129
Impact	286	263	325	335	17	27	27
Total	3085	3007	5456	5733	190	512	519
Section Modulus	1943	1943	3587	3587	—	—	—

DESIGNED BY E. L.
DRAWN BY I. M.
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APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

ROADWAYS "A" & "D"

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF8E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 369 OF 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF&E-1	ST. CLAIR	247	240
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions

Spans D15 thru D17

Location		Moment: 4 Span D15 & 5 Span D17	Moment: 5 Span D16	Moment: Piers D16 & D17	Reaction: Piers D15 & D18	Reaction: Piers D16 & D17
Dead Load	Primary	1361	1308	3256	93	340
	Secondary	15	14	14	1	1
Live Load	Primary	1140	1131	1302	72	117
	Secondary	14	13	18	1	—
Impact		273	247	292	17	26
Centrifugal Force		46	45	52	3	5
Total		2849	2758	4934	187	489
Section Modulus		1934	1934	3325	—	—
Torque Loading	Dead Load	2.7	4.1	8.1		
	Live Load	2.6	3.9	3.7		
	Impact	0.6	0.8	0.8		
	Total	5.9	8.8	12.6		
	Section Modulus	67.5	67.5	121.5		

Table of Moments and Reactions

Spans D18 thru D20

Location		Moment: 4 Span D18	Moment: 5 Span D19	Moment: 6 Span D20	Moment: Pier D19	Moment: Pier D20	Reaction: Pier D18	Reaction: Pier D19	Reaction: Pier D20	Reaction: Pier D21
Dead Load	Primary	1431	1468	1541	3379	3516	97	355	368	103
	Secondary	14	15	15	26	28	1	1	1	1
Live Load	Primary	1165	1230	1262	1325	1385	73	123	128	78
	Secondary	12	12	13	11	11	1	—	—	1
Impact		278	263	298	304	313	17	28	29	19
Centrifugal Force		45	45	44	50	49	3	5	5	3
Total		2945	3033	3173	5095	5302	192	512	531	205
Section Modulus		1943	2135	2135	3403	3403	—	—	—	—
Torque Loading	Dead Load	3.8	3.7	3.5	7.2	6.9				
	Live Load	3.0	3.0	2.9	2.8	2.8				
	Impact	0.6	0.7	0.6	0.6	0.6				
	Total	7.4	7.4	7.0	10.6	10.3				
	Section Modulus	54.0	60.8	60.8	101.3	101.3				

Table of Moments and Reactions

Spans D26 & D27

Location		Moment: 4 Span D26 & 6 Span D27	Moment: Pier D27	Moment: —	Moment: —	Reaction: Piers D26 & D28	Reaction: Pier D27	Reaction: —
Dead Load		1612	3356	—	—	101	353	—
Live Load		1216	1188	—	—	73	114	—
Impact		284	278	—	—	17	27	—
Total		3112	4822	—	—	191	494	—
Section Modulus		1934	3003	—	—	—	—	—

Table of Moments and Reactions

Spans D22 thru D25

Location		Moment: 4 Span D22	Moment: 5 Span D23	Moment: 5 Span D24	Moment: 6 Span D25	Moment: Pier D23	Moment: Pier D24	Moment: Pier D25	Reaction: Pier D22	Reaction: Pier D23	Reaction: Pier D24	Reaction: Pier D25	Reaction: Pier D26
Dead Load	Primary	2367	2641	2898	3374	5873	6941	7316	138	528	597	649	189
	Secondary	24	29	32	37	53	62	66	1	2	2	2	2
Live Load	Primary	1712	1948	2146	2240	2310	2751	2720	93	179	200	211	117
	Secondary	19	21	23	25	22	25	25	1	—	1	1	1
Impact		376	379	420	504	484	540	573	21	37	39	44	26
Centrifugal Force		48	46	44	39	58	60	52	3	5	4	4	2
Total		4606	5064	5563	6219	8800	10379	10752	257	751	843	911	337
Section Modulus		3200	3450	3700	4200	5720	6990	7500	—	—	—	—	—
Torque Loading	Dead Load	8.9	9.9	10.9	12.7	18.1	21.5	22.6					
	Live Load	6.6	7.4	8.1	8.4	7.2	8.5	8.4					
	Impact	1.4	1.4	1.6	1.9	1.5	1.7	1.8					
	Total	16.9	18.7	20.6	23.0	26.8	31.7	32.8					
	Section Modulus	132.0	144.0	156.0	180.0	240.0	300.0	324.0					

Table of Moments and Reactions

Spans D28 thru D32

Location		Moment: 4 Span D28 & 6 Span D32	Moment: 5 Span D29 & 5 Span D31	Moment: 5 Span D30	Moment: Piers D29 & D32	Moment: Piers D30 & D31	Reaction: Piers D28 & D33	Reaction: Piers D29 & D32	Reaction: Piers D30 & D31	Reaction: —
Dead Load	Primary	2249	2091	2091	5389	5737	122	442	449	—
	Secondary	64	60	60	123	131	3	3	4	—
Live Load	Primary	1566	1566	1566	2108	2322	77	150	154	—
	Secondary	44	44	44	48	53	2	1	1	—
Impact		337	299	299	430	444	17	30	29	—
Centrifugal Force		163	163	163	219	242	8	16	16	—
Total		4423	4223	4223	8317	8929	229	642	653	—
Section Modulus		3335	3119	3119	6023	6239	—	—	—	—
Torque Loading	Dead Load	21.7	20.4	20.4	43.4	45.7				
	Live Load	15.3	15.2	15.2	16.5	18.4				
	Impact	3.2	2.9	2.9	3.3	3.5				
	Total	40.2	38.5	38.5	63.2	67.6				
	Section Modulus	168.0	156.0	156.0	312.0	324.0				

DESIGNED BY E. L.
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APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

ROADWAY "D"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
370 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVFBE-1	ST. CLAIR	247	241
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions

Spans G1 thru G4

Location		Moment .4 Span G1	.5 Span G2	.5 Span G3	.6 Span G4	Pier G2	Pier G3	Pier G4	Reaction Pier G1	Pier G2	Pier G3	Pier G4	Pier G5
Dead	Primary	2090	1900	1793	1671	4673	4630	4053	135	474	453	415	111
Load	Secondary	21	19	18	17	38	37	33	1	1	1	1	1
Live	Primary	1378	1400	1376	1300	1568	1680	1490	83	137	138	132	79
Load	Secondary	14	14	14	13	13	13	12	1	—	—	—	1
Impact		324	293	290	303	343	350	329	20	30	29	29	19
Centrifugal Force		42	43	42	40	48	52	46	3	4	4	4	2
Total		3869	3669	3533	3344	6683	6762	5963	243	646	625	581	213
Section Modulus		2694	2502	2319	2319	4338	4338	3962	—	—	—	—	—
Torque Loading	Dead Load	5.6	5.1	4.8	4.5	10.3	10.1	8.9					
	Live Load	3.7	3.7	3.7	3.5	3.4	3.7	3.3					
	Impact	0.9	0.8	0.8	0.8	0.8	0.8	0.7					
	Total	10.2	9.6	9.3	8.8	14.5	14.6	12.9					
	Section Modulus	81.0	74.3	67.5	67.5	135.0	135.0	121.5					

Table of Moments and Reactions

Spans G5 thru G8

Location		Moment .4 Span G5	.5 Span G6	.5 Span G7	.6 Span G8	Pier G6	Pier G7	Pier G8	Reaction Pier G5	Pier G6	Pier G7	Pier G8	Pier G9
Dead	Primary	1603	1462	1432	1489	3589	3629	3405	105	372	366	355	98
Load	Secondary	16	14	14	15	29	29	27	1	1	1	1	1
Live	Primary	1270	1268	1232	1170	1472	1540	1380	78	131	131	125	73
Load	Secondary	13	13	12	12	12	12	11	1	—	—	—	1
Impact		305	265	263	284	322	336	310	18	29	28	28	17
Centrifugal Force		47	47	45	43	54	57	51	3	5	5	5	3
Total		3254	3069	2998	3013	5478	5603	5184	206	538	531	514	193
Section Modulus		2135	2135	2135	2135	3567	3779	3403	—	—	—	—	—
Torque Loading	Dead Load	3.6	3.3	3.2	3.5	6.6	6.7	6.6					
	Live Load	2.8	2.8	2.8	2.7	2.7	2.8	2.6					
	Impact	0.7	0.6	0.6	0.7	0.6	0.6	0.6					
	Total	7.1	6.7	6.6	6.9	9.9	10.1	9.8					
	Section Modulus	60.8	60.8	60.8	60.8	108.0	114.8	101.8					

Table of Moments and Reactions

Spans G9 thru G11

Location		Moment .4Span G9 .6Span G11	.5 Span G10	Piers G10 & G11	Reaction Piers G9 & G12	Piers G10 & G11
Dead	Primary	1511	1532	3537	99	370
Load	Secondary	15	15	31	1	1
Live	Primary	1212	1232	1470	73	125
Load	Secondary	12	12	12	1	—
Impact		283	255	327	17	28
Centrifugal Force		44	42	50	2	4
Total		3077	3088	5727	193	528
Section Modulus		2135	2135	3823	—	—
Torque Loading	Dead Load	3.9	4.0	8.1		
	Live Load	3.2	3.1	3.1		
	Impact	0.7	0.7	0.7		
	Total	7.8	7.8	11.9		
	Section Modulus	60.8	60.8	121.5		

Table of Moments and Reactions

Spans G12 & G13

Location		Moment .4 Span G12	.6 Span G13	Pier G13	Reaction Pier G12	Pier G13	Abut. G14
Dead	Primary	1976	1629	4021	145	478	124
Load	Secondary	20	16	32	1	1	1
Live	Primary	1507	1424	1415	107	158	102
Load	Secondary	15	14	11	1	—	1
Impact		370	354	345	27	39	25
Centrifugal Force		28	26	26	2	3	2
Total		3916	3463	5850	283	679	255
Section Modulus		2694	2319	3962	—	—	—
Torque Loading	Dead Load	5.2	4.3	8.7			
	Live Load	3.9	3.8	3.0			
	Impact	1.0	0.9	0.8			
	Total	10.1	9.0	12.5			
	Section Modulus	81.0	67.5	121.5			

Table of Moments and Reactions

Spans H2 thru H4

Location		Moment .4 Span H2	.5 Span H3	.6 Span H4	Pier H3	Pier H4	Reaction Pier H2	Pier H3	Pier H4	Abut. H5
Dead	Primary	2175	2053	2012	4936	4736	126	448	433	118
Load	Secondary	22	21	21	40	38	1	1	1	1
Live	Primary	1523	1517	1468	1735	1691	81	140	137	80
Load	Secondary	15	15	15	14	14	1	—	—	1
Impact		340	300	331	366	360	18	30	29	18
Centrifugal Force		58	58	56	66	64	3	5	5	3
Total		4133	3964	3903	7157	6903	230	624	605	221
Section Modulus		2878	2695	2878	4906	4906	—	—	—	—
Torque Loading	Dead Load	8.0	7.6	7.4	14.9	14.2				
	Live Load	5.5	5.5	5.4	5.2	5.1				
	Impact	1.3	1.1	1.2	1.1	1.1				
	Total	14.8	14.2	14.0	21.2	20.4				
	Section Modulus	87.8	81.0	87.8	155.3	155.3				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

ROADWAYS "G" & "H"

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 371 OF 526

DESIGNED BY E.L.
DRAWN BY I.M.
CHECKED BY E.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-I	ST. CLAIR	247	242
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions

Spans M7 thru M9

Location		Moment: .4 Span M7 & Span M9	Moment: .5 Span M8	Moment: Piers M7 & M8	Reaction: Piers M6 & M9	Reaction: Piers M7 & M8
Dead	Primary	1372	1327	3386	88	325
Load	Secondary	46	44	91	3	3
Live	Primary	813	821	1756	50	65
Load	Secondary	27	27	20	2	1
Impact		190	171	168	12	14
Centrifugal Force		122	123	113	8	10
Total		2570	2513	4534	163	418
Section Modulus		2242	2104	3452	—	—
Torque Loading	Dead Load	16.7	16.2	33.8		
	Live Load	10.2	10.3	7.6		
	Impact	2.2	2.1	1.7		
	Total	29.1	28.6	43.1		
	Section Modulus	101.3	94.5	162.0		

Table of Moments and Reactions

Spans M10 thru M12

Location		Moment: .4 Span M10	Moment: .5 Span M11	Moment: .5 Span M12	Moment: Pier M10	Moment: Pier M11	Reaction: Pier M9	Reaction: Pier M10	Reaction: Pier M11	Reaction: Pier M12
Dead	Primary	1906	1721	1755	4535	4352	104	376	364	98
Load	Secondary	61	55	57	117	112	3	3	3	3
Live	Primary	982	968	944	1272	1250	51	95	92	48
Load	Secondary	32	31	30	33	32	2	1	1	2
Impact		209	184	206	261	257	11	19	19	10
Centrifugal force		147	145	141	191	187	8	14	14	7
Total		3337	3104	3133	6409	6190	179	508	493	168
Section Modulus		2735	2375	2375	4963	4602	—	—	—	—
Torque Loading	Dead Load	23.2	21.3	21.8	46.1	44.5				
	Live Load	12.4	12.0	11.7	13.2	12.6				
	Impact	2.7	2.3	2.5	2.5	2.5				
	Total	38.3	35.6	36.0	61.8	59.6				
	Section Modulus	1680	1440	1440	3120	2880				

Table of Moments and Reactions

Spans M13 thru A5-M

Location		Moment: .4 Span M13	Moment: .5 Span M14	Moment: .6 Span A5-M	Moment: Pier M13	Moment: Pier M14	Reaction: Pier M12	Reaction: Pier M13	Reaction: Pier M14	Reaction: Pier A5
Dead	Primary	1265	1326	1226	3256	3224	83	315	314	82
Load	Secondary	21	22	21	44	43	1	1	1	1
Live	Primary	782	803	784	956	954	47	82	81	47
Load	Secondary	13	13	13	13	13	1	—	—	—
Impact		182	167	176	213	211	11	18	18	11
Centrifugal force		60	61	60	73	72	4	6	6	4
Total		2323	2392	2280	4555	4517	147	422	420	146
Section Modulus		1701	1701	1701	3182	3182	—	—	—	—
Torque Loading	Dead Load	8.2	8.5	7.7	17.3	17.0				
	Live Load	5.0	5.1	5.2	5.1	5.1				
	Impact	1.2	1.1	1.2	1.1	1.2				
	Total	14.4	14.7	14.1	23.5	23.3				
	Section Modulus	74.3	74.3	74.3	148.5	148.5				

Table of Moments and Reactions

Spans N1 thru N4

Location		Moment: .4 Span N1 & Span N4	Moment: .5 Span N2 & Span N3	Moment: Piers N2 & N4	Moment: Pier N3	Reaction: Piers N1 & N3	Reaction: Piers N2 & N4	Reaction: Pier N3
Dead	Primary	1385	1302	3390	3512	88	323	326
Load	Secondary	40	37	76	78	2	3	3
Live	Primary	821	836	1026	1112	48	85	86
Load	Secondary	23	23	23	25	2	1	1
Impact		192	174	226	232	11	19	18
Centrifugal force		122	124	152	165	7	13	13
Total		2583	2496	4893	5124	158	444	447
Section Modulus		2135	2135	3639	3823	—	—	—
Torque Loading	Dead Load	10.4	9.8	20.8	21.6			
	Live Load	6.1	6.3	6.3	6.9			
	Impact	1.5	1.3	1.4	1.4			
	Total	18.0	17.4	28.5	29.9			
	Section Modulus	60.8	60.8	114.8	121.5			

Table of Moments and Reactions

Spans D26-Q thru Q2

Location		Moment: .4 Span D26-Q	Moment: .5 Span Q1	Moment: .6 Span Q2	Moment: Pier Q1	Moment: Pier Q2	Reaction: Pier D26	Reaction: Pier Q1	Reaction: Pier Q2	Reaction: Pier P14
Dead	Primary	936	970	935	2460	2320	73	271	264	72
Load	Secondary	11	10	10	21	20	1	1	1	1
Live	Primary	668	675	660	711	724	46	72	72	46
Load	Secondary	8	7	7	6	6	1	—	—	1
Impact		171	151	164	179	171	11	17	17	11
Centrifugal force		33	33	33	35	36	2	4	4	2
Total		1827	1846	1809	3412	3277	134	365	358	133
Section Modulus		1298	1298	1298	2373	2242	—	—	—	—
Torque Loading	Dead Load	4.2	4.3	4.2	8.8	8.4				
	Live Load	2.9	3.0	2.9	2.8	2.6				
	Impact	0.7	0.6	0.7	0.6	0.6				
	Total	7.8	7.9	7.8	12.2	11.6				
	Section Modulus	54.0	54.0	54.0	108.0	101.3				

DESIGNED BY E.L.
DRAWN BY I.M.
CHECKED BY E.L.
APPROVED BY K.A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

RAMP "M" & "N" & "Q"

FAI RT 70 ST. CLAIR CO. SECTION: 82-3HVFBE-I

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 372 OF 526

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST CLAIR	547	243
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions
Spans 01 thru 03

		Moment					Reaction			
Location		.4 Span 01	.5 Span 02	.6 Span 03	Pier 01	Pier 02	Pier 01	Pier 01	Pier 02	Pier 03
Dead Load	Primary	1620	1680	1685	4124	4268	94	356	360	96
	Secondary	38	39	40	78	81	2	2	2	2
Live Load	Primary	903	945	941	1171	1211	48	89	90	49
	Secondary	21	22	22	22	23	1	1	1	1
Impact		200	185	208	245	164	10	19	19	10
Centrifugal force		101	106	105	132	136	5	10	10	5
Total		2883	2977	3001	5772	5883	160	477	482	163
Section Modulus		2188	2339	2339	4090	4236	—	—	—	—
Torque Load	Dead Load	14.5	12.9	15.1	30.2	31.2				
	Live Load	8.0	7.3	8.3	8.6	8.9				
	Impact	1.8	1.3	1.9	1.7	1.8				
	Total	24.3	21.5	25.3	40.5	41.9				
	Section Modulus	87.8	94.5	94.5	175.5	182.3				

Table of Moments and Reactions
Spans 04 thru 06

		Moment					Reaction			
Location		.4 Span 04	.5 Span 05	.6 Span 06	Pier 04	Pier 05	Pier 03	Pier 04	Pier 05	Pier 06
Dead Load	Primary	1296	1258	1280	3205	3150	84	312	308	83
	Secondary	31	—	—	62	—	2	1	—	—
Live Load	Primary	783	793	715	944	931	47	81	80	46
	Secondary	19	—	—	18	—	1	—	—	—
Impact		182	164	180	208	206	11	18	17	11
Centrifugal force		104	—	—	75	—	6	6	—	—
Total		2415	2215	2235	4512	4287	151	418	405	140
Section Modulus		2043	1452	1452	3227	2931	—	—	—	—
Torque Load	Dead Load	10.7	—	—	21.7	—				
	Live Load	6.5	—	—	6.4	—				
	Impact	1.5	—	—	1.4	—				
	Total	18.7	—	—	29.5	—				
	Section Modulus	81.0	—	—	135.0	—				

Table of Moments and Reactions
Spans 08 thru 010

		Moment					Reaction			
Location		.4 Span 08	.5 Span 09	.6 Span 010	Pier 09	Pier 09	Pier 07	Pier 08	Pier 09	Abut. 010
Dead Load	Primary	1512	1451	1550	3725	3778	92	338	340	93
	Secondary	42	41	42	83	84	2	3	3	2
Live Load	Primary	871	881	894	1081	1096	48	86	87	49
	Secondary	24	24	24	24	24	1	1	1	1
Impact		197	179	202	233	236	11	19	19	11
Centrifugal force		116	117	118	144	146	7	11	12	7
Total		2762	2693	2830	5290	5364	161	458	462	163
Section Modulus		2188	2043	2188	3972	3972	—	—	—	—
Torque Load	Dead Load	15.9	15.3	16.2	32.3	32.7				
	Live Load	9.2	9.2	9.3	9.3	9.5				
	Impact	2.1	1.9	2.1	2.0	2.0				
	Total	27.2	26.4	27.6	43.6	44.2				
	Section Modulus	87.8	81.0	87.8	168.8	168.8				

Table of Moments and Reactions
Spans 012 thru 014

		Moment					Reaction			
Location		.4 Span 012	.5 Span 013	.6 Span 014	Pier 012	Pier 013	Abut. 011	Pier 012	Pier 013	Pier 014
Dead Load	Primary	1448	1367	1417	3598	3493	89	327	325	88
	Secondary	—	—	—	—	—	—	—	—	—
Live Load	Primary	845	834	826	1028	1015	48	84	83	47
	Secondary	—	—	—	—	—	—	—	—	—
Impact		193	170	189	223	220	11	18	18	11
Centrifugal force		—	—	—	—	—	—	—	—	—
Total		2486	2371	2432	4849	4728	148	429	426	146
Section Modulus		1603	1452	1603	3227	3227	—	—	—	—

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

RAMP "O"

FAI RT 70 ST CLAIR CO SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 373 OF 526

DESIGNED BY E.L.
DRAWN BY I.M.
CHECKED BY E.L.
APPROVED BY K.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVF&E-1	ST. CLAIR	247	244
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions

Spans P4 thru P6

Location		Moment			Reaction	
		.4 Span P4 & Span P6	.5 Span P5	Piers P5 & P6	Piers P4 & P7	Piers P5 & P6
Dead	Primary	974	1650	3030	74	306
Load	Secondary	28	48	69	2	2
Live	Primary	743	859	883	48	80
Load	Secondary	22	24	20	1	5
Impact		180	179	199	12	18
Centrifugal Force		95	110	113	6	10
Total		2042	2870	4314	143	421
Section Modulus		1701	2242	3182	—	—
Torque Loading	Dead Load	12.5	18.0	21.2		
	Live Load	9.5	9.4	7.8		
	Impact	2.3	1.9	1.8		
	Total	24.3	29.3	36.8		
	Section Modulus	74.3	101.3	148.5		

Table of Moments and Reactions

Spans P7 thru P9

Location		Moment				Reaction			
		.4 Span P7	.5 Span P8	.6 Span P9	Pier P8	Pier P9	Pier P7	Pier P8	Pier P9	Pier P10
Dead	Primary	1638	1666	1540	3600	3482	94	335	329	91
Load	Secondary	46	52	44	97	94	2	2	2	2
Live	Primary	894	918	863	1028	1012	48	85	84	47
Load	Secondary	25	25	25	23	22	2	1	1	1
Impact		199	177	196	212	210	11	18	18	11
Centrifugal Force		114	118	110	132	130	6	11	11	6
Total		2916	2956	2778	5092	4950	163	452	445	158
Section Modulus		2242	2373	2104	3715	3715	—	—	—	—
Torque Loading	Dead Load	20.0	20.0	19.0	36.6	35.6				
	Live Load	11.1	11.2	10.6	10.1	9.8				
	Impact	2.5	2.3	2.4	2.2	2.1				
	Total	33.6	33.5	32.0	48.9	47.5				
	Section Modulus	101.3	108.0	94.5	175.5	175.5				

Table of Moments and Reactions

Spans P10 thru P13

Location		Moment						Reaction				
		.4 Span P10	.5 Span P11	.5 Span P12	.6 Span P13	Pier P11	Pier P12	Pier P13	Pier P10	Pier P11	Pier P12	Pier P13	Pier P14
Dead	Primary	1420	1450	1507	1399	3461	3756	3443	88	322	332	322	88
Load	Secondary	—	36	36	35	69	72	69	—	—	2	2	2
Live	Primary	830	845	861	829	1060	1168	1068	48	85	89	85	48
Load	Secondary	—	21	22	21	21	23	21	—	—	5	5	1
Impact		187	172	171	187	229	236	218	11	18	18	18	11
Centrifugal Force		—	93	95	91	116	128	117	—	—	10	9	5
Total		2437	2617	2692	2562	4956	5383	4936	147	425	456	441	155
Section Modulus		1835	1970	2104	1835	3452	3715	3452	—	—	—	—	—
Torque Loading	Dead Load	—	13.6	14.6	12.3	27.7	29.7	28.7					
	Live Load	—	9.6	9.2	7.3	8.7	9.6	8.7					
	Impact	—	1.7	1.8	1.6	1.9	1.9	1.9					
	Total	—	24.9	25.6	21.2	38.3	41.2	39.3					
	Section Modulus	—	87.8	94.5	81.0	162.0	175.5	162.0					

Table of Moments and Reactions

Spans S1 thru S3

Location		Moment					Reaction			
		.4 Span S1	.5 Span S2	.6 Span S3	Pier S1	Pier S2	Pier S1	Pier S2	Pier S3	
Dead	Primary	939	881	906	2295	2237	72	263	257	70
Load	Secondary	17	16	17	34	33	1	1	1	1
Live	Primary	668	637	644	725	706	46	72	71	45
Load	Secondary	12	12	12	11	10	1	—	—	1
Impact		169	145	163	174	169	11	17	17	11
Centrifugal Force		56	54	54	61	59	4	6	6	4
Total		1861	1745	1796	3300	3214	135	359	352	132
Section Modulus		1433	1298	1298	2373	2373	—	—	—	—
Torque Loading	Dead Load	6.5	6.1	6.3	13.4	13.0				
	Live Load	4.6	4.3	4.4	3.9	3.8				
	Impact	1.2	1.0	1.2	1.0	0.9				
	Total	12.3	11.4	11.9	18.3	17.7				
	Section Modulus	60.8	54.0	54.0	108.0	108.0				

Table of Moments and Reactions

Spans S4 thru S7

Location		Moment							Reaction				
		.4 Span S4	.5 Span S5	.5 Span S6	.6 Span S7	Pier S4	Pier S5	Pier S6	Pier S3	Pier S4	Pier S5	Pier S6	Pier S7
Dead	Primary	1156	1069	1069	1224	2790	2858	2875	79	289	290	294	81
Load	Secondary	33	—	15	35	32	—	66	2	2	—	2	2
Live	Primary	729	738	738	774	879	947	906	46	78	80	80	48
Load	Secondary	21	—	10	22	10	—	21	1	—	—	—	1
Impact		174	158	158	185	200	203	209	11	18	17	18	11
Centrifugal Force		93	—	47	99	56	—	116	6	5	—	10	6
Total		2206	1965	2037	2339	3967	4008	4193	145	392	387	404	149
Section Modulus		1701	1701	1701	1835	3044	3182	3182	—	—	—	—	—
Torque Loading	Dead Load	11.2	—	5.2	11.9	11.1	—	22.9					
	Live Load	7.1	—	3.6	7.5	3.4	—	7.6					
	Impact	1.7	—	0.8	1.8	0.8	—	1.7					
	Total	20.0	—	9.6	21.2	15.3	—	32.2					
	Section Modulus	74.3	—	74.3	81.0	141.8	—	148.5					

DESIGNED BY E. L.
DRAWN BY I. M.
CHECKED BY E. L.
APPROVED BY K. A.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

RAMP "P" & "S"

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVF&E-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 114 OF 526

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	82-3HVFBE-1	ST. CLAIR	247	245
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

Table of Moments and Reactions

Spans R3 thru 01-R

	Location	Moment: 4 Span R3	5 Span R4	6 Span 01-R	Pier R4	Pier 01	Reaction: Pier R3	Pier R4	Pier 01	Pier G1
Dead Load	Primary	1746	1818	1810	3885	3970	97	352	354	99
	Secondary	17	16	18	31	32	1	1	1	1
Live Load	Primary	946	948	980	1088	1110	48	88	88	49
	Secondary	9	10	10	9	9	1	—	—	1
Impact		210	186	218	227	232	11	18	18	11
Centrifugal Force		43	43	44	49	50	2	4	4	2
Total		2971	3023	3080	5289	5403	160	463	465	163
Section Modulus		2043	2043	2043	3523	3523	—	—	—	—
Torque Loading	Dead Load	5.6	5.7	5.8	10.1	10.3				
	Live Load	3.0	3.0	3.1	2.9	2.9				
	Impact	0.5	0.6	0.5	0.6	0.6				
	Total	9.1	9.3	9.4	13.6	13.8				
	Section Modulus	81.0	81.0	81.0	148.5	148.5				

Table of Moments and Reactions

Spans A21-R thru R2

	Location	Moment: 4 Span A21-R	5 Span R1	6 Span R2	Pier R1	Pier R2	Reaction: Pier A21	Pier R1	Pier R2	Pier R3
Dead Load	Primary	1822	1691	1841	4420	4432	100	364	365	101
	Secondary	18	17	18	35	36	1	1	1	1
Live Load	Primary	989	960	972	1265	1255	48	92	92	49
	Secondary	9	10	10	10	10	1	—	—	1
Impact		217	185	210	262	258	11	19	19	11
Centrifugal Force		44	43	44	52	54	2	4	4	2
Total		3099	2906	3095	6044	6045	163	480	481	165
Section Modulus		2188	2043	2188	4117	4117	—	—	—	—
Torque Loading	Dead Load	6.1	5.7	6.2	12.1	12.2				
	Live Load	3.3	3.2	3.2	3.5	3.4				
	Impact	0.7	0.6	0.7	0.7	0.7				
	Total	10.1	9.5	10.1	16.3	16.3				
	Section Modulus	87.8	81.0	87.8	175.5	175.5				

Table of Moments and Reactions

Spans S8 thru S10

	Location	Moment: 4 Span S8 6 Span S10	5 Span S9	Piers S8-S9	Reaction: Piers S7-S10	Piers S8-S9
Dead Load	Primary	714	1165	2150	63	258
	Secondary	20	34	50	2	2
Live Load	Primary	617	689	661	46	70
	Secondary	17	20	15	1	—
Impact		157	154	161	12	17
Centrifugal Force		79	88	85	6	9
Total		1604	2150	3122	130	356
Section Modulus		1298	1701	2242	—	—
Torque Loading	Dead Load	7.1	14.0	8.0		
	Live Load	6.2	8.2	5.4		
	Impact	1.6	1.9	1.3		
	Total	14.9	24.1	24.7		
	Section Modulus	54.0	74.3	101.3		

Table of Moments and Reactions

Spans S16 thru S18

	Location	Moment: 4 Span S16	5 Span S17	6 Span S18	Pier S16	Pier S17	Reaction: Pier S15	Pier S16	Pier S17	Pier S18
Dead Load	Primary	1305	1328	1259	3163	3125	84	311	308	83
	Secondary	37	38	36	73	72	2	2	2	2
Live Load	Primary	810	828	760	948	931	48	82	81	47
	Secondary	23	23	22	21	21	2	1	1	2
Impact		192	173	185	212	208	11	18	18	11
Centrifugal Force		104	106	100	121	119	6	10	10	3
Total		2471	2496	2382	4558	4476	153	424	420	148
Section Modulus		1835	1970	1835	3320	3320	—	—	—	—
Torque Loading	Dead Load	14.1	14.3	13.6	28.0	27.5				
	Live Load	8.7	8.9	8.4	8.4	8.2				
	Impact	2.0	1.9	1.9	1.9	1.9				
	Total	24.8	25.1	23.9	38.3	37.6				
	Section Modulus	81.0	87.8	81.0	155.3	155.3				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

STRESS TABLES

POPLAR STREET BRIDGE APPROACHES

RAMPS "R" & "S"

FAI RT. 70 ST. CLAIR CO. SECTION 82-3HVFBE-1

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET 1375 OF 526

DESIGNED BY E. L.
DRAWN BY I. M.
CHECKED BY E. L.
APPROVED BY K. A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	82-3HVF BE-1	ST. CLAIR	247	246
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		

ROADWAY A

Pier No.	Girder A1	Girder A2
A1 - Span A1	441.33	442.11
A2	437.51	438.55
A3	435.03	436.06
A4	434.50	436.54
A5 - Span A4	433.94	437.69
A5 - Span A5	433.39	437.69
A6	437.02	439.47
A7	437.11	439.67
A8 - Span A7	438.17	440.73
A8 - Span A8	438.17	440.73
A9	437.44	440.00
A10	438.76	441.32
A11 - Span A10	439.73	442.29
A11 - Span A11	439.73	442.29
A12 - Span A11	440.09	442.68
A12 - Span A12	440.09	442.68
A13	440.08	442.68
A14	439.76	442.58
A15 - Span A14	439.97	442.93
A15 - Span A15	439.97	442.93
A16	438.89	442.05
A17	440.59	443.79
A18 - Span A17	440.[illegible]	442.52
A18 - Span A18	442.71	442.52
A19	439.40	443.32
A20	441.76	445.69
A21 - Span A20	442.51	447.74
A21 - Span A21	442.51	447.74
A22	451.09	451.43
A23	454.57	458.85
A24	453.59	456.60
A25 - Span A24	442.[illegible]0	459.84

RAMP M

Pier No.	Girder M1	Girder M2
M16 - Span M17	470.28	468.50
M17	461.75	465.06
M18	468.79	461.87
M19 - Span M9	459.85	457.93
M19 - Span M10	459.85	457.93
M10	464.00	462.30
M11	466.10	465.56
M12 - Span M12	464.66	462.14
M12 - Span M13	462.66	462.14
M13	461.70	459.25
M14	456.30	457.92
M15 - Span M14	459.92	457.35

RAMP R

Pier No.	Girder R1	Girder R2
R21 - Span A21R2	442.51	448.22
R1	445.74	450.60
R2	451.46	453.37
R3 - Span R2	453.75	455.61
R3 - Span R3	453.75	455.61
R4	453.46	456.32
R1	452.41	455.31
R1 - Span R1-2	452.[illegible]	453.36

ROADWAY D

Pier No	Girder D1	Girder D2
D1 - Span D1	442.44	441.90
D2	438.99	438.49
D3	437.00	436.50
D4	436.90	436.40
D5 - Span D4	[illegible].45	436.95
D5 - Span D5	437.45	436.95
D6	437.46	436.91
D7	437.25	436.84
D8 - Span D7	438.07	438.68
D8 - Span D8	438.07	438.68
D9	436.62	438.15
D10	437.84	441.55
D11 - Span D10	438.26	441.85
D11 - Span D11	438.26	441.09
D12 - Span D11	439.99	442.35
D12 - Span D12	439.99	442.55
D13	439.97	442.53
D14	439.73	442.29
D15 - Span D14	441.06	443.62
D15 - Span D15	441.06	443.62
D16	440.27	442.93
D17	443.26	443.76
D18 - Span D17	439.36	441.61
D18 - Span D18	439.36	441.61
D19	438.51	440.88
D20	437.12	439.63
D21 - Span D20	437.63	440.29
D21 - Span D21	437.63	440.29
D22 - Span D21	436.70	439.57
D22 - Span D22	436.70	439.57
D23	434.13	437.08
D24	433.07	437.38
D25	435.88	439.08
D26 - Span D25	437.16	439.79
D26 - Span D26	440.66	439.79
D27	442.71	442.13
D28 - Span D27	443.50	441.55
D28 - Span D28	443.50	441.55
D29	443.31	440.75
D30	441.67	442.11
D31	447.16	444.90
D32	447.32	444.36
D33 - Span D32	449.32	447.84

RAMP N

Pier No.	Girder N1	Girder N2
D11 - Span D11 N	441.09	442.35
D11 - Span D11 N	442.39	442.13
N1 - Span N1	443.09	441.13
N12	442.37	440.63
N13	441.61	439.89
N14	440.32	438.70
N5 - Span N4	440.86	438.56

RAMP Q

Pier No.	Girder Q1	Girder Q2
D25 - Span D26Q	437.16	440.66
Q1	440.38	442.30
Q2	441.85	443.57
B.A. - Span Q2	442.80	443.85

ROADWAY G

Pier No.	Girder G1	Girder G2
G1 - Span G1	449.15	453.38
G2	445.96	448.61
G3	447.18	450.75
G4	447.39	450.47
G5 - Span G4	448.09	451.01
G5 - Span G5	448.09	451.01
G6	446.80	449.35
G7	446.59	448.70
G8	446.29	448.85
G9 - Span G8	446.86	445.32
G9 - Span G9	446.86	448.82
G10	442.93	447.46
G11	441.72	444.30
G12 - Span G11	438.77	441.33
G12 - Span G12	437.91	441.63
G13	434.33	436.43
G14 (Abutment)	433.88	436.84

RAMP S

Pier No.	Girder S1	Girder S2
S12 - Span S1	437.61	441.43
S1	441.42	443.34
S2	442.93	443.32
S3 - Span S3	443.55	450.14
S3 - Span S4	448.55	450.14
S4	452.31	453.54
S5	457.31	456.96
S6	462.33	461.10
S7 - Span S7	466.93	465.01
S7 - Span S8	466.93	465.01
S8	469.13	467.51
S9	473.21	471.39
S10 - Span S10	476.92	473.40
S16 - Span S16	481.01	481.09
S16	487.55	486.45
S17	484.70	483.11
S18 - Span S18	481.49	480.68

ROADWAY H

Pier No.	Girder H1	Girder H2
H1 - Span H1	459.71	463.12
H2 - Span H1	458.51	459.73
H2 - Span H2	458.51	459.73
H3	453.02	456.71
H4	453.52	457.10
H5 (Abutment)	453.56	456.81

RAMP P

Pier No.	Girder P1	Girder P2
P2 - Span P2	452.26	460.34
P3	461.18	462.56
P4	464.43	463.01
P7 - Span P5	464.59	460.67
P7 - Span P7	460.59	460.67
P8	462.25	460.33
P9	457.37	456.53
P10 - Span P9	453.77	453.43
P10 - Span P10	453.77	453.43
P11	448.72	449.27
P12	444.13	445.36
P13	441.36	443.58
P14 - Span P13	440.25	442.80
P14 - Span P14	440.25	442.83
P15 - Span P14	442.12	443.76
P15 - Span P15	440.11	443.76
H1 - Span P15	439.71	443.12

Note: Bearing Elevations are to Top of Concrete Piers or Abutments.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS

BEARING ELEVATIONS

POPLAR STREET BRIDGE APPROACHES

F.A.I. RT. 70 ST. CLAIR CO. SECTION 82-3HVB-1, 82-3HVF BE-1

H.W. LOCHNER, INC. ENGINEERS
CHICAGO, ILLINOIS

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